



Implementation of Health Level Seven (HL7) Version 2.5 and Version 2.5.1

Part 1.2.5: Patient administration



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- ACT Health
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Australian Standard[®]

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Part 1.2.5: Patient administration

Originated as AS 4700.1—2006.
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PREFACE

This Australian Standard was prepared by the Standards Australia Technical Committee IT-014, Health Informatics, in response to requests from the health informatics community.

The Standards Australia Technical Committee IT-014 recognizes the work of the Standards Australia Working Group IT-014-06-03, Patient Administration Messaging, in the preparation of this Standard.

This Standard covers the implementation of chapter 3 of the Health Level Seven (HL7) Version 2.5 protocol and supersedes AS 4700.1—2006, *Implementation of Health Level Seven (HL7) Version 2.5*, Part 1: *Patient administration*. It is based on AS 4700.1—2001 (Version 2.3.1) and AS 4700.1—1998 (Version 2.3), which will remain current Standards. This Standard is also based on the HL7 International Standards V2.5 and V2.5.1.

HL7 Version 2.5 has been extended to Version 2.5.1 as a result of the interpretation of the requirements of the Clinical Laboratory Improvements Amendment of 1988 related to the exchange of electronic laboratory information with supplemental agencies. The changes from Version 2.5 to Version 2.5.1 are confined to chapters 2, 4, 7 and 9, and do not impact on the scope of this Standard (AS 4700.1). Consequently, this Standard is equally applicable to HL7 Version 2.5 and HL7 Version 2.5.1.

The objective of this Standard is to enable the greatest degree of standardization possible in the exchange of patient administration data among various healthcare computer applications in Australia using HL7 Version 2.5, as well as HL7 Version 2.5.1 where applicable.

The changes from AS 4700.1—2006 to this document include the following:

- (a) The addition of Healthcare Identifiers.
- (b) The updating of the National Health Data Dictionary identifiers to the Australian Institute of Health and Welfare Metadata Online Registry identifiers.
- (c) Use of the term ‘Section’ when referring to HL7 International documents rather than ‘Clause’.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is for information and guidance only.

This publication has been developed with assistance from the Australian Government Department of Health. The Australian Government makes no representation or warranty that the information in this publication is correct and accurate.

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CONTENTS

	<i>Page</i>
FOREWORD.....	5
1 SCOPE.....	6
2 APPLICATION.....	6
3 NORMATIVE REFERENCES	6
4 TERMS AND ACRONYMS.....	7
5 GENERAL GUIDANCE.....	7
6 DEFINITIONS.....	12
7 TRIGGER EVENTS	13
8 MESSAGE SEGMENTS.....	32
9 BATCHING OF TRANSACTIONS.....	69
APPENDICES	
A ISSUES IN THE HL7 V2.4 STANDARD NOT FIXED IN THE HL7 V2.5 STANDARD.....	73
B LIST OF HL7 V2.5 DATA TYPES AND SUBCOMPONENTS	74
BIBLIOGRAPHY.....	101

FOREWORD

Work on this Standard was initiated by Standards Australia Working Group IT-014-06-03, Patient Administration Messaging, to fulfil its mission of developing Australian Standards for patient electronic data communication between healthcare information systems based on the Health Level Seven (HL7) protocol.

HL7 is a healthcare application protocol accredited as a Standard by the American National Standards Institute. 'Level Seven' refers to the highest layer of the International Organization for Standardization communications model for Open Systems Interconnection, the application layer. Issues within the application level include definition of the data to be exchanged, the timing of the exchange and communication of certain errors to the application. This layer supports such functions as security checks, identification of the participants, availability checks, negotiating exchange mechanisms and, importantly, structuring the data exchanges themselves.

HL7 focuses on the interface requirements of the entire healthcare organization. It allows development along the fastest possible track to the unique requirements of already installed healthcare systems, some of which use mature technologies.

Australia already has an existing base of healthcare institutions that use the HL7 protocol to exchange key sets of data between different computer application systems. While HL7 is concerned with addressing immediate needs, there is a very strong focus on convergence with other Standards development activities in the USA and international HL7 initiatives in countries such as Canada, Finland, Germany, India, Japan, the Netherlands, South Africa and the United Kingdom.

The HL7 protocol is a collection of standard formats that specify the implementation of interfaces between computer applications. It is not rigid. Flexibility is built into the protocol to allow compatibility for specialized data sets that have facility-specific needs. HL7's inbuilt flexibility is one of its strengths. However, it is also one of its weaknesses. It is open to misinterpretation in its structure and format.

HL7 is based on the health environment in the USA. Implementation of the HL7 Version 2.5 or Version 2.5.1 protocol in the Australian health environment requires a common and consistent approach.

The HL7 protocol covers a wide range of data interchange functions. However, this Australian implementation Standard focuses on the patient administration functions, as these form the common basis for all HL7 messages. Generally, information entered into a patient administration system is passed to the nursing, ancillary and financial systems, either in the form of an unsolicited update or in response to a record-oriented query.

Other functions of HL7 being addressed in Australian Standards include pathology orders and results, pathology results for registries, electronic messages for exchange of information on drug prescription, and referral and health service messaging. These Standards are being developed by combining HL7 technical expertise with specialist business knowledge.

STANDARDS AUSTRALIA

Australian Standard

Implementation of Health Level Seven (HL7) Version 2.5 and Version 2.5.1

Part 1.2.5: Patient administration

1 SCOPE

This Standard defines a uniform implementation of chapter 3 of the Health Level Seven (HL7) Version 2.5 (V2.5) and V2.5.1 protocols. It is primarily designed for use within and between Australian healthcare settings.

It covers patient administration functions, as these form the basis for most clinical healthcare messages. It also provides interpretation of and guidance on which HL7 trigger events, segments and data elements are mandatory (required), or optional or conditional (required, based on a condition), and gives relevant usage notes for the Australian health environment.

This Standard provides for consistent use of data definitions as well as commentary and references to the National Health Data Dictionary (available via the Metadata Online Registry at www.meteor.aihw.gov.au) and the International Organization for Standardization (ISO). This Standard is referenced by other Australian Standards on how to implement HL7 and is required by implementers of those Standards.

NOTES:

- 1 Appendix A lists issues in HL7 V2.4 that have not been addressed in HL7 V2.5.
- 2 Appendix B lists the data types in HL7 V2.5.

2 APPLICATION

This Standard shall be read in conjunction with the HL7 V2.5 and V2.5.1 Standards (see Clause 3).

This Standard is a guide for use by Australian health authorities, health service providers, health institutions, health information technology vendors, health information technology consultants and the health informatics community who use the HL7 protocol to exchange key sets of data between different computer application systems.

NOTE: This is not a stand-alone document for application in isolation. A good understanding and, preferably, working knowledge of HL7 is essential.

3 NORMATIVE REFERENCES

The following are the normative documents referenced in this Standard:

AS

- | | |
|--------|---|
| 2632 | Codes for the representation of names of countries and their subdivisions |
| 2632.1 | Part 1: Country codes |
| 5017 | Health Care Client Identification |

HL7

V2.5 Health Level Seven Version 2.5, Ann Arbor: Health Level Seven, 2003

V2.5.1 Health Level Seven Version 2.5.1, Ann Arbor: Health Level Seven, April 2007

METeOR Australian Institute of Health and Welfare (AIHW) 2010. Metadata Online Registry (METeOR). Canberra: AIHW. Viewed 11 October 2011. Available at <<http://meteor.aihw.gov.au/content/index.phtml/itemId/181162>>.

NOTE: Documents for informative purposes are listed in the Bibliography.

4 TERMS AND ACRONYMS

4.1 Terms and definitions

For the purpose of this Standard—

- (a) shall—indicates that a statement is mandatory;
- (b) should—indicates a recommendation; and
- (c) may—indicates the existence of an option.

4.2 Acronyms

NOTE: See Clause 8.1 for an explanation of the abbreviations in the table column headings in Tables 2–25 and all tables in the appendices.

ADR	Allergic Drug Reaction
ADT	Admission, Discharge, Transfers
AMA	Australian Medical Association
AUSHIC	Medicare Australia, formerly Australian Health Insurance Commission
EMR	Electronic Medical Record
METeOR	Metadata Online Registry
MPI	Master Person Index
PAS	Patient Administration System
PMI	Patient Master Index
PMS	Practice Management System

5 GENERAL GUIDANCE

5.1 Patient identification

AS 5017 clarifies the mechanisms for reliably identifying healthcare clients (e.g. patients). Refer to the PID segment for more details.

NOTE: It is important to differentiate between the identifiers for clinical purposes and those for eligibility or billing purposes. Refer to Clause 5.4 and PID-3 in Table 1.

5.2 Provider identification

5.2.1 General

AS 4846—2006, *Health Care Provider Identification*, clarifies the mechanisms for reliably identifying healthcare providers. The implementation guide HB 222—2006, *Australian Health Care Client and Provider Identification Handbook* [Ref. 6] was published as supplementary information to AS 4846—2006 [Ref. 1] to define the messaging of this data. Refer to the PV1 segment in Clause 8.7 for communicating the patient's attending, referring and consulting doctor.

5.2.2 Representation of Health Identifiers in HL7 Version 2 (V2) messaging

5.2.2.1 General

The Healthcare Identifiers Service is a foundation element of the broader eHealth system and is underpinned by the *Healthcare Identifiers Act 2010* [Ref. 10], the *Healthcare Identifiers Regulations 2010* [Ref. 11] and the National Partnership Agreement on E-Health [Ref. 14].

In HL7 V2 there are multiple places for representation of Health Identifiers, Patient, Provider and Organisation. The common thread amongst their representation is the Assigning Authority and Identifier Type Code.

For implementation guidance, refer to SA HB 234—2012, *Healthcare identifier HL7 implementation guide* [Ref. 7].

5.2.2.2 Assigning authority

The Assigning Authority for Identifiers (including Unique Health Identifiers) assigned by Medicare Australia (formerly the Health Insurance Commission) is represented by 'AUSHIC' in the table associated with this HL7 element, HL7 Table 0363.

5.2.2.3 Identifier type code

The Identifier Type Code represents the type of identifier. These values are specified in HL7 Table 0203 and some extensions for Australia in Australian Standards. The code NI is used for the Patient and the code NPI for Provider Identifiers.*

Use of Identifiers:

- (a) IHI—'NI' (National unique individual identifier, e.g. 800360nnnnnnnnnnnn)
- (b) HPI-I—'NPI' (National Provider Identifier, e.g. 800361nnnnnnnnnnnn)
- (c) HPI-O—'NOI' (National Organisation Identifier, e.g. 800362nnnnnnnnnnnn)

Examples:

Patient Identifier—PID-3(CX)

```
<patient identifier (ST)>^<check digit (ST)>^<check digit scheme (ID)>^<assigning authority (HD)>^<identifier type code (IS)>^<assigning facility (HD)>
```

```
8003608833357361^^^AUSHIC^NI
```

Provider Identifier—PRD-7(CM)/XCN

CM:

```
<ID number (ST)>^<type of ID number (IS)>^<other qualifying info (ST)>
```

```
8003619900015717^NPI^AUSHIC
```

XCN:

```
<ID number (ST)>^<family name (ST)>&<last name prefix (ST)>^<given name (ST)>^<middle initial or name (ST)>^<suffix (ST)>^<prefix (ST)>^<degree (e.g., MD) (IS)>^<source table (IS)>^<assigning authority (HD)>^<name type (ID)>^<identifier check digit (ST)>^<code identifying the check digit scheme employed (ID)>^<identifier type
```

* Although there is no code for Organisation Identifier in the most recent balloted HL7 V2.x version, i.e. 2.8, of Table 0203, the registration of the code NOI for the Organisation Identifier has been accepted for HL7 V2.9.

code (IS)>^<assigning facility ID (HD)>^<name representation code (ID)>

8003619900015717^Smith^John^S^^DR^MD^^AUSHIC^^^^NPI

Organization Identifier—XON

XON:

<organization name (ST)>^<organization name type code (IS)>^<ID number (NM)>^<check digit (NM)>^<code identifying the check digit scheme employed (ID)>^<assigning authority (HD)>^<identifier type code (IS)>^<assigning facility ID (HD)>^<name representation code (ID)>

XYZ Organisation^L^8003621566684455^^^AUSHIC^NOI

Refer to AS 4700.1.2.4:2014, *Implementation of Health Level Seven (HL7) Version 2.4, Part 1: Patient administration* [Ref. 5], SA HB 234 [Ref. 7], and *Use of Healthcare Identifiers in Health Software Systems* [Ref. 13].

5.3 Use of ROL segment in triggers

The ROL segment is used in this message to communicate providers not specified elsewhere. Person level providers with an ongoing relationship are reported in the ROL segment following the PID/PD1 segments. Providers corresponding to the PV1 data are reported in the ROL segment following the PV1/PV2 segments. Providers related to a specific procedure are reported in the ROL segment following the PR1 segment. Providers related to a specific insurance are reported in the ROL segment following the IN1/IN2/IN3 segments. To communicate the begin date and end date of the provider, the *ROL-5—Role begin date/time* and the *ROL-6—Role end date/time* should be used in the ROL segment, with the applicable *ROL-3—Role Code*. Refer to HL7 V2.5, Section 12.4.3, for the definition of the ROL segment.

5.4 Billing information

5.4.1 Billing category

To date (December 2013) there is no agreed controlled vocabulary for billing category. As an interim solution, the following codes should be used:

(a) *Agreed Australian billing category codes:**

AUSAMA	Australian Medical Association (AMA) recommended fee
AUSM75	75% of Medicare schedule fee
AUSM85	85% of Medicare schedule fee
AUSM100	Medicare schedule fee
CONCESSION	Concession fee level Used to indicate that the patient should be billed at a concessional rate. The concessional rate might be applied to Health Care card holders or patients deemed to be minors.
DVA	Department of Veterans' Affairs fee level Used to indicate that the patient should be billed at the applicable DVA rate.

* Explanations for these codes were developed by Standards Australia Working Group IT-14-06-03, Patient Administration Messaging, March 2012.

FREE	Free service Used to indicate that the service is provided free of charge. An example might be a publicly funded clinic (e.g. a Victorian Ambulatory Classification and Funding System (VACS) clinic in Victoria).
HEALTHFUND	Health Fund fee level Used to indicate that the patient should be billed at the applicable DVA rate.
MV	Motor Vehicle Compensation Used to indicate that the patient should be billed at the prevailing compensation rate for Motor Vehicle Accidents. For example, in Victoria this would be rate specified by the Transport Accident Commission.
NOCHARGE	No Charge service Used to indicate that the service is provided at a \$0 charge. A use for this service could be where the service is part of a program of services for which only the initial service is billed, or where a service would otherwise be classified as Aftercare. While a NOCHARGE indicator implies the same fee as a FREE service (i.e. \$0), the differential can be important for downstream data analysis.
OVERSEAS	Overseas patient not covered by a Reciprocal Health Agreement Used to indicate that the patient should be billed as an overseas patient who does not have rights to Medicare Benefits.
PENSIONER	Pensioner fee level Used to indicate that the patient should be billed at a pensioner rate. The choice between a concessional rate and a pensioner rate is available for differentiating patients with a Pension card.
PRISONER	Correctional services fee level Used to indicate that the patient should be billed at the Correctional Service rate.
PRIVATE	Private Practice fee level Used to indicate that the patient should be billed at the Private Practice fee level for Outpatients or the Uninsured Patient fee level for Inpatients.
TP	Third Party Organisation fee level Used to indicate that the patient should be billed at the Institutional or Organisational rate.
WC	Worker's Compensation Fee level Used to indicate that the Patient should be billed at the prevailing Worker's Compensation rate. In Queensland this would be the QCOMP rate; in Victoria, the WorkSafe Victoria rate; and in New South Wales, the WorkCover rate (i.e. AMA).

(b) *Local codes:*

By site-specific agreement, local billing codes can be used. These should be prefixed with 'LB_' (as per HL7 V2.5 Table 0396, 'Coding System') to indicate the domain of the code list. The next 3 characters identify the originator of the code—for example, LB_XYZLABxxxx.

Billing category is sent in *PV1-21 Charge price indicator*.

5.4.2 Funding source

METeOR 339080 'Funding source for hospital patient' lists the following codes:

- 01 Australian Health Care Agreements (in the community setting, this can be used to indicate Medicare funding)
- 02 Private health insurance
- 03 Self-funded
- 04 Worker's compensation
- 05 Motor vehicle third party personal claim
- 06 Other compensation (e.g. public liability, common law, medical negligence)
- 07 Department of Veterans' Affairs
- 08 Department of Defence
- 09 Correctional facility
- 10 Other hospital or public authority (contracted care)
- 11 Reciprocal healthcare agreements (with other countries)
- 12 Other
- 13 No charge raised
- 99 Not known

Funding source is specified in *PV1-20 Financial class*. Funding source details are listed in Table 1.

Further information on the billable party can be sent in various segments, depending on funding source.

TABLE 1
FUNDING SOURCE DETAILS

Code	Funding source details
01	Medicare number is sent in PID-3 <i>Patient identifier list</i> .
02	Private fund details are sent in the IN1 segment.
03	Patient or guarantor details are in the GT1 segment. If the patient is the payer, the patient's details are included in the GT1 segment.
04	Organizational guarantor details are sent in the GT1 segment.
05	Third party claims are usually billed to another party in the first instance. If a known guarantor is identified, the guarantor's details can be sent in the GT1 segment.
06	Other compensation claims are usually billed to another party in the first instance. If a known guarantor is identified, the guarantor's details can be sent in the GT1 segment.
07	DVA File number is sent in PID-3 <i>Patient identifier list</i> .
08	Dept of Defence file number is sent in PID-3 <i>Patient identifier list</i> .
09	Occupants of a correctional facility will usually be publicly funded. Medicare number can be sent in PID-3 <i>Patient identifier list</i> .
10	Contract details are sent in PV1-24 <i>Contract code</i> . Organizational guarantor details are sent in the GT1 segment.
11	Organizational guarantor details are sent in the GT1 segment.
12	Guarantor details are sent in the GT1 segment.
99	Undefined or not known.

6 DEFINITIONS

For the purpose of this document, the definitions below apply.

6.1 Admitted patient

A patient who undergoes a hospital's admission process to receive treatment and care. Patients are admitted for one or more reasons, including the need for clinical management, observation for assessment or diagnosis or medication needs, procedure(s) that require(s) specialist support facilities or expertise, legal reasons (e.g. under mental health or child protection legislation), or if the patient is aged nine days or less (see METeOR 268957 'Admitted patient').

6.2 Non-admitted patient

A patient who does not undergo a hospital's formal admission process. This includes emergency department patients, outpatients, and other non-admitted patients (see METeOR 268973 'Non-admitted patient').

6.3 Trigger event

Action that takes place in an application, based on some predefined condition such as an admission, ward transfer, placement of an order, etc. The action usually results in the compilation and transmission of a data message.

6.4 Visit

The hospital stay from the date of admission to the date of discharge, for an admitted patient visit. The attendance for which one or more services are provided to that patient, for a non-admitted patient visit.

7 TRIGGER EVENTS

7.1 General

It is assumed that transactions will only be produced by sending systems after satisfying the relevant validation checks within each system and, therefore, confirming that data integrity is maintained. The trigger events are described in Clauses 7.3 to 7.64 and all are served by the ADT unsolicited update and the ACK response. A19 trigger events are served by a QRY query and an ADR (ADT response) reply.

It is recognized that different healthcare systems use different definitions of admitted patient, non-admitted patient, emergency room and recurring patient types, or handle these patients differently. Therefore, trigger events are not defined as specific to any patient type. The patient type for any visit-related information shall be specified in the patient class data element (see PV1-2) to enable each system to handle the transaction properly.

This means that both the trigger event code and the patient class should be checked in order to determine how to handle the transaction. If a certain patient class can sometimes be assigned to a bed, for example, 'observation' patients, then the Assigned Patient Location field (see PV1-3) should also be checked.

Both admitted and non-admitted patient trigger events are generated using most of the same trigger event codes. The meaning or interpretation of the trigger event depends on the type of patient, for example, inpatient or outpatient, as defined in HL7 Table 0004 Patient Class used in field PV1-2.

The information that is included in any of these trigger event transactions can be more than the minimum necessary to accommodate the trigger event. Any data elements that are in the data segments listed for the message can be used, and as many or as few data elements as are agreed upon during implementation can be used. The A08 trigger event should be used to update data elements that are not necessarily related to any of the other trigger events. The action to be taken, if additional data elements are supplied which are not specifically related to the trigger event, should also be agreed on prior to implementation.

7.2 Trigger event description

Each trigger event is described as follows:

- (a) *Status* The status can be 'mandatory' or 'non-mandatory', as follows:
 - (i) Mandatory—shall be supported by all vendors of health software.
 - (ii) Non-mandatory—support by vendors of health software is optional.
- (b) *Description* The description outlines the context in which the trigger will be used.
- (c) *Examples* Examples are provided for the purpose of further clarifying the description text. Use of the triggers should not be limited to the examples provided.
- (d) *Usage notes* Usage notes give information that is pertinent to the use of the trigger event.

7.3 A01 Admit/visit notification

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A01 trigger event is intended to be used for admitted patients only. It is normally generated as a result of the patient undergoing the admission process of an institution that assigns the patient to a bed. It signals the beginning of a patient's stay in a healthcare facility.

- (c) *Examples* The A01 trigger event notifies—
- (i) the pharmacy system that a patient has been admitted and can be legitimately prescribed drugs;
 - (ii) the nursing system that the patient has been admitted and needs a care plan prepared;
 - (iii) the finance system that the billing period has started;
 - (iv) the catering system that a new patient has been installed and requires catering services;
 - (v) the pathology or diagnostic imaging systems that a patient has been admitted and is entitled to receive services;
 - (vi) hospital EMR that a patient has been admitted; and
 - (vii) health service providers that their patient has been admitted to the healthcare facility.
- (d) *Usage notes* This information is usually entered in the primary PAS and broadcast to the nursing units and ancillary systems. It includes short stay and John Doe admissions.

7.4 A02 Transfer a patient

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A02 trigger event is generated as a result of the patient changing his or her assigned physical location. This can include admitted and non-admitted patients.
- (c) *Examples* The A02 trigger event notifies—
- (i) pathology or diagnostic imaging systems that the patient has changed location and test results should be redirected;
 - (ii) the pharmacy system that the patient's drugs should be redirected;
 - (iii) the catering system that the meals should be delivered to a different location; and
 - (iv) hospital EMR that transfer has taken place.
- (d) *Usage notes* The A02 trigger event is not intended to be used to record temporary location changes where trigger events A09 (see Clause 7.11) and A10 (see Clause 7.12) should be used. The new patient location appears in data element 'Assigned Patient Location' (see PV1-3), while the old patient location appears in data element 'Prior Patient Location' (see PV1-6).

7.5 A03 Discharge/end visit

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A03 trigger event signals the end of the patient's stay in the healthcare facility. For an admitted patient, the A03 trigger event is generated as a result of recording the actual discharge date. The patient is no longer in the facility. For a non-admitted patient, the A03 trigger event is sent as a result of recording the actual completion of the non-admitted visit to the healthcare facility.

- (c) *Examples* The A03 trigger event notifies—
- (i) the pharmacy system that the patient is no longer a patient and is therefore not entitled to drugs;
 - (ii) the nursing system that the patient has been discharged and the care plan can be completed;
 - (iii) the finance system that the patient billing period has ended;
 - (iv) hospital EMR that discharge has taken place; and
 - (v) health service providers that their patient has been discharged from the healthcare facility.
- (d) *Usage notes* For an admitted patient, the patient's location prior to discharge should be entered in data element 'Assigned Patient Location' (see PV1-3). For a non-admitted patient, the visit and date/time can be entered in data element 'Discharge Date/Time' (see PV1-45).

7.6 A04 Register a patient

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A04 trigger event is generated when a patient has arrived and has been registered as a non-admitted patient.
- (c) *Examples* The A04 trigger event notifies—
- (i) the pharmacy system that the patient is a legitimate non-admitted patient for the purpose of filling drug orders;
 - (ii) the diagnostic imaging and pathology systems that the patient is a legitimate non-admitted patient for the purpose of filling diagnostic imaging and pathology orders;
 - (iii) the finance system that for billing purposes a non-admitted service has been provided; and
 - (iv) hospital EMR that non-admitted service provision has taken place.
- (d) *Usage notes* The visit start date/time is entered in data element 'Admit Date/Time' (see PV1-44). When adding a patient to a PMI, only the A28 (Add person information) trigger event, described in Clause 7.30, should be used.

7.7 A05 Pre-admit a patient

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A05 trigger event is generated when it is necessary to notify that either an admitted or a non-admitted service provision has been booked.
- (c) *Examples* The A05 trigger event notifies—
- (i) the theatre system when a patient admission is planned, for the appropriate scheduling of theatres;
 - (ii) the diagnostic imaging and pathology systems of the planned patient admission, for booking and performance of services before surgery;
 - (iii) hospital EMR that a patient has been booked;
 - (iv) the pharmacy system that a non-admitted service provision is planned; and
 - (v) maternity bookings pre-admission.

- (d) *Usage notes* The A38 trigger event (see Clause 7.40) is used to cancel erroneous entry of the A05 trigger event.

7.8 A06 Change a non-admitted patient to an admitted patient

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A06 trigger event is generated as the result of a patient who is present for a non-admitted service provision being admitted after evaluation of the seriousness of the patient's condition—for example, a non-admitted patient attends an outpatient clinic, arrests and is admitted. This trigger event changes a patient's status from non-admitted to admitted.
- (c) *Examples* The A06 trigger event notifies—
- (i) the pharmacy system of the patient's change of status;
 - (ii) the diagnostic imaging and pathology systems of the patient's change of status;
 - (iii) the finance system of the patient's change of status; and
 - (iv) hospital EMR.
- (d) *Usage notes* The new patient location should appear in data element 'Assigned Patient Location' (see PV1-3), while the old patient location (if different) should appear in data element 'Prior Patient Location' (see PV1-6). The new patient class should appear in data element 'Patient Class' (see PV1-2). The significance of this trigger event depends on the institution and how it implements patient control and statistics. It is not expected to be very useful, as most hospitals record the non-admitted and admitted visits separately for statistics, costing and care planning.

7.9 A07 Change an admitted patient to a non-admitted patient

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A07 trigger event is generated as the result of the status of an admitted patient being changed to non-admitted patient, where the patient is still being seen for the same episode of care.
- (c) *Example* Pathology, diagnostic imaging and pharmacy systems should be notified that the patient has changed from admitted to non-admitted.
- (d) *Usage notes* The new patient location should appear in data element 'Assigned Patient Location' (see PV1-3), while the old patient location (if different) should appear in data element 'Prior Patient Location' (see PV1-6). The relevance of this trigger event depends on the institution and how it implements patient control and statistics.

7.10 A08 Update patient information

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A08 trigger event is generated as a result of patient information being changed. This will include all fields that are not specifically identified by some other trigger, for example, A02 trigger event for location modification.
- (c) *Examples* The A08 trigger event notifies—
- (i) the finance system of the patient's address change;
 - (ii) the pharmacy system of the patient's name change;

- (iii) the pharmacy, pathology and diagnostic imaging systems of the patient's demographics; and
 - (iv) hospital EMR of a change to patient's demographics.
- (d) *Usage notes* It is anticipated that separate transactions will be generated for separate events. For example, changes to clinical or financial status require date and time of change. However, this does not preclude an A08 trigger event with multiple changed fields, including both demographics and visit details.

7.11 A09 Patient departing—tracking

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A09 trigger event is generated as the result of a patient departing one area for another at the same facility. Due to the amount of time that this process can take, particularly in a multicampus or multifacility environment, a patient departing—tracking event can be captured and triggered to other systems.
- (c) *Examples* The A09 trigger event notifies—
 - (i) the pharmacy system that a patient has departed the previous location, to identify that a patient is in a state of travel; and
 - (ii) the catering system that a patient is in the process of travel so that meals are no longer delivered to the previous location.

7.12 A10 Patient arriving—tracking

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A10 trigger event is generated as the result of a patient arriving in one area from another at the same facility. Due to the amount of time that this process can take, particularly in a multicampus or multifacility environment, a patient arriving—tracking event can be captured and triggered to other systems.
- (c) *Examples* The A10 trigger event notifies—
 - (i) the pharmacy system that a patient has arrived at a new location, to identify that the patient has completed travel; and
 - (ii) the catering system that a patient has finished travelling and that meals can be delivered to the new location.

7.13 A11 Cancel admit/visit notification

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A11 trigger event is generated as a result of the patient's admission or visit being cancelled. For admitted patients, it is sent either to cancel an erroneous A01 (admit a patient) trigger event or because of a decision not to admit a patient.
- (c) *Examples* The A11 trigger event notifies—
 - (i) the pharmacy system that the visit has been cancelled and drugs are not required;
 - (ii) the diagnostic imaging and pathology systems that the visit has been cancelled;
 - (iii) the catering system that meals are no longer required for this patient; and
 - (iv) hospital EMR of the change.

- (d) *Usage notes* The movement of a transaction of this nature via interfaces could create some dilemmas for the receiving system. This could be due to the fact that the cancellation has probably taken place in the absence of any information about what data has been collected during the period of admission. Examples include the existence of care plans, bookings for services and actual services. Note that the A38 (cancel pre-admit) trigger event in Clause 7.40 is used to cancel an A05 (pre-admit a patient) trigger event.

7.14 A12 Cancel transfer

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A12 trigger event is generated following cancellation of an admitted or non-admitted patient location transfer. It is sent either to cancel an erroneous A02 (transfer a patient) trigger event or because of a decision not to transfer a patient.
- (c) *Examples* The A12 trigger event notifies—
- (i) the pharmacy system for appropriate delivery of drugs;
 - (ii) the diagnostic imaging and pathology systems that the location has reverted to the previous one;
 - (iii) the catering system that the patient's location has not changed for meal deliveries; and
 - (iv) hospital EMR of the change.
- (d) *Usage notes* The location of the patient before the original transfer should be recorded in data element 'Assigned Patient Location' (see PV1-3). This trigger event has significant implications for interfaces with nursing systems that create new care plans on the basis of a change of location. Where there is a location conflict, it might not be possible for the receiving system to make use of the transaction.

7.15 A13 Cancel discharge/end visit

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A13 trigger event is generated following the cancellation of the end of a patient's stay. It is sent either to cancel an erroneous A03 (discharge/end visit) trigger event or because of a decision not to discharge the patient or end the patient visit.
- (c) *Examples* The A13 trigger event notifies—
- (i) the pharmacy, diagnostic imaging and pathology systems that the patient's admission status has been reinstated;
 - (ii) the catering system that meals are still required for the patient;
 - (iii) the finance system that the billing period has been reopened; and
 - (iv) hospital EMR of the change.
- (d) *Usage notes* After the cancellation has been processed, the location of the patient should be in data element 'Assigned Patient Location' (see PV1-3). Before the erroneous A03 trigger event, the patient's previous location should be in data element 'Prior Patient Location' (see PV1-6).

7.16 A14 Pending admit

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A14 trigger event is generated to notify a plan to admit a patient.
- (c) *Usage notes* This trigger event could be used for notification to the ward of a pending admission, allowing preparation of a bed and notification of resident medical staff.

7.17 A15 Pending transfer

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A15 trigger event is generated to notify a planned transfer of the patient to a new location.
- (c) *Examples* The A15 trigger event notifies—
 - (i) orderlies for patient movement of the intention to transfer a patient to receiving ward; and
 - (ii) the catering system of the intention to change patient location.
- (d) *Usage notes* This trigger event is used when advance warning of a transfer is needed.

7.18 A16 Pending discharge

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A16 trigger event is generated to notify a planned discharge of a patient when the patient has not yet left the healthcare facility.
- (c) *Examples* The A16 trigger event notifies—
 - (i) the pharmacy system of the intention to discharge a patient who will need drugs; and
 - (ii) the physiotherapy system for post-discharge bookings.
- (d) *Usage notes* This trigger event could be used for notification to the patient's accounts of pending discharge, allowing preparation of accounts, and notification to resident medical staff to complete the discharge summary and the patient's medical record.

7.19 A17 Swap patients

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A17 trigger event is generated when two patients are to exchange beds.
- (c) *Examples* The A17 trigger event notifies—
 - (i) the pharmacy system so that drugs are sent to the correct location;
 - (ii) the catering system so that meals are sent to the correct location; and
 - (iii) the pathology system so that test results are sent to the correct location.
- (d) *Usage notes* Refer to Section 3.6.1 of the HL7 V2.5 protocol for further information.

7.20 A18 Merge patient information

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A18 trigger event is generated to merge current and previous patient ID for the existing admitted or non-admitted visit.
- (c) *Example* This trigger event is retained for backwards compatibility only. It is superseded by trigger events A40, A41 and A42. Refer to Section 3.6.2 of the HL7 V2.5 protocol.

7.21 A19 Patient query

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A19 trigger event is generated because an application system (such as a service system, e.g. pharmacy) issues a QRY query message (solicit) to the patient management system to provide patient detail (e.g. patient name or address). For further details on QRY, refer to Section 3.3.19 of the HL7 V2.5 protocol.
- (c) *Examples* The A19 trigger event initiates—
 - (i) pharmacy system requests for patient details prior to filling a script;
 - (ii) diagnostic imaging and pathology system requests for patient details prior to satisfying an order/service request; and
 - (iii) catering system requests for patient details prior to recording/satisfying a meal order for the patient.
- (d) *Usage notes* The implications of this trigger event are that the sending and receiving systems can at least understand and support query accept/response messages and syntax. Query content detail is a site by site implementation issue.

7.22 A20 Bed status update

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A20 trigger event is generated as the result of a bed status change.
- (c) *Example* The nursing system should be notified that the bed is not in use and infection control should be notified that the bed is closed.

7.23 A21 Patient goes on a 'leave of absence'

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A21 trigger event is generated to notify that an admitted patient has gone on a leave of absence. It is used for systems where a bed is still assigned to the patient and puts that patient's current admission on suspension.
- (c) *Examples* The A21 trigger event notifies—
 - (i) the pathology and diagnostic imaging systems that a patient is on weekend leave, such as a cancer patient home for weekend leave on a Friday, returning to the hospital on Monday morning;
 - (ii) the catering system that the patient is absent and meals are not required; and
 - (iii) the finance system of the change to patient leave status.

- (d) *Usage notes* As there is no specific field for the leave of absence start date/time, the data element 'Event Occurred' (see EVN-6) should contain the date/time the patient actually left. 'Expected LOA Return Date/Time' (see PV2-47) is used to communicate the date/time the patient is expected to return from leave of absence.

7.24 A22 Patient returns from a 'leave of absence'

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A22 trigger event is generated to notify that a patient has returned from a leave of absence. It is used for systems where a bed is still assigned to the patient who has his or her current admission on suspend/hold and is returning to the hospital. It removes the state of suspension from the patient's admission.
- (c) *Examples* The A22 trigger event notifies—
 - (i) the pathology and diagnostic imaging systems that the patient has returned from weekend leave;
 - (ii) the catering system that the patient is no longer absent and meals are required; and
 - (iii) the finance system of the change to patient leave status.
- (d) *Usage notes* As there is no specific field for the leave of absence start date/time, the data element 'Event Occurred' (see EVN-6) should contain the date/time the patient actually returned from leave of absence. The data element 'EXPECTED LOA Return Date/Time' (see PV2-47) is used to communicate the date/time the patient was expected to return from leave of absence.

7.25 A23 Delete a patient record

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A23 trigger event is generated to remove a specific visit record.
- (c) *Usage notes* This trigger event can be used to remove old data from a database. It should not be used for the removal of recent and relevant data.

7.26 A24 Link patient information

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* Linking two or more patients does not necessarily require the actual merging of patient information. The A24 trigger event is generated to link records where patient data records should remain distinct.
- (c) *Example* The A24 trigger event would possibly be used in a hospital network where there are multiple campuses, and records need to be linked; that is, Hospital A, Hospital B and Hospital C would keep their own record data on a particular patient, but an A24 link record would be transmitted to a corporate-wide PMI to enable the link of patient ID information to the corporate patient ID number, or data-warehouse data.
- (d) *Usage notes* This trigger event is used for corporate repositories and other repositories. It is not meant to link mothers to babies. Refer to Section 3.6.3 of the HL7 V2.5 protocol.

7.27 A25 Cancel pending discharge

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A25 trigger event is generated to notify the cancellation of a previously recorded pending discharge. It is sent either to cancel an erroneous A16 (pending discharge) trigger event or because of a decision not to discharge the patient.
- (c) *Examples* The A25 trigger event notifies—
 - (i) the pharmacy system that intention to discharge the patient has been cancelled and discharge drugs are not required; and
 - (ii) the physiotherapy system that post-discharge booking is not required.

7.28 A26 Cancel pending transfer

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A26 trigger event is generated to notify the cancellation of a previously recorded pending transfer. It is sent either to cancel an erroneous A15 (pending transfer) trigger event or because of a decision not to transfer the patient.
- (c) *Examples* The A26 trigger event notifies—
 - (i) orderlies for patient movement that the intention to transfer a patient to a receiving ward has been cancelled; and
 - (ii) the catering system that the patient will not be changing location.

7.29 A27 Cancel pending admit

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A27 trigger event is generated as a result of the cancellation of a planned admission. It is sent either to cancel an erroneous A14 (pending admit) trigger event or because of a decision not to admit the patient.
- (c) *Examples* The A27 trigger event notifies—
 - (i) the theatre system that the theatre space is now available for rescheduling; and
 - (ii) hospital EMR of the change.

7.30 A28 Add person information

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A28 trigger event is generated to communicate to other interested systems and relevant master patient databases a person's activity and details. The person does not need to be an active patient (e.g. may be a guarantor).
- (c) *Examples* The A28 trigger event adds a record to—
 - (i) cancer registry from patient management;
 - (ii) HIV database from pathology;
 - (iii) corporate PMI from hospitals within the health enterprise; and
 - (iv) one hospital within an enterprise from a second hospital within the enterprise.

- (d) *Usage notes* This trigger event can be used to maintain departmental PMIs. It is not intended to replace the use of trigger events A01, A03, A04, A08, etc.

The person whose data is being sent is identified in data element 'Patient ID' (see PID-2), even where the person is not a patient and may be a potential guarantor. For these transactions, data element names should be translated from 'patient' to 'person'. As a result, 'person information' about a guarantor can be sent independently of the guarantor's relation to the patient. The A28 trigger event can be used to send everything that is known about a person from one database to another database.

Site-specific negotiations are required to decide how much data is transmitted when a person becomes a patient.

7.31 A29 Delete person information

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A29 trigger event is generated to delete all demographic details or records from a corporate PMI or an institution-based PMI. This trigger event 'undoes' an A28 trigger event (see Clause 7.30).
- (c) *Examples* Can be used when adding the person information was performed in error, or when another record already exists for the person, or where the person is to be purged from the database.
- (d) *Usage notes* When the A29 trigger event is sent, all visit and account level data for the person are also purged.

7.32 A30 Merge person information

Event A30 has been retained for backwards compatibility only. From HL7 V2.3.1 onwards, event A40 (Merge patient—Patient identifier list) should be used instead.

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A30 trigger event is generated to merge person demographic information on a corporate-wide PMI. The A34, A35, A36, A40, A41 and A42 trigger events records should be used to merge patient information for a current visit. If data is to be merged on the PMI, only then should an A30 trigger event be used. It is not patient specific; for example, the person may be a guarantor.
- (c) *Example* The finance, pathology, diagnostic imaging and pharmacy systems should be notified that the patient's two ID records should be merged.
- (d) *Usage notes* The incorrect patient ID (medical record number) is identified in data element 'Prior Patient Identifier List' (see MRG-1), while the correct medical record number is identified in data element 'Patient Identifier List' (see PID-3). All visits are associated with the correct medical record number.

7.33 A31 Update person information

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A31 trigger event relates to the updating of person information on a PMI. It is similar to an A08 trigger event in that it can update a lot of fields—for example, name, address, date of birth, financial class, and clinical unit. The difference is that an A08 trigger event relates to visit-specific data, not patient-specific data.

- (c) *Examples* The A31 trigger event notifies—
 - (i) the finance system of the patient's or guarantor's address change; and
 - (ii) disparate systems of changes to PMI detail.

Trigger event A34 offers a further example.

7.34 A32 Cancel patient arriving—tracking

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A32 trigger event is sent either to cancel an erroneous A10 (patient arriving—tracking) trigger event, or because of a decision not to receive the patient.
- (c) *Usage notes* If the patient was in a non-temporary location, then the data element 'Assigned Patient Location' (see PV1-3) contains the original patient location before the erroneous A10 trigger event. If the patient was in a temporary location, then the data element 'Temporary Location' (see PV1-11) contains the original patient location before the erroneous A10 trigger event.

7.35 A33 Cancel patient departing—tracking

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A33 trigger event is sent either to cancel an erroneous A09 (patient departing—tracking) trigger event, or because of a decision not to send the patient.
- (c) *Usage notes* If the patient was in a non-temporary location, then the data element 'Assigned Patient Location' (see PV1-3) contains the original patient location before the erroneous A09 trigger event. If the patient was in a temporary location, the data element 'Temporary Location' (see PV1-11) contains the original patient location before the erroneous A09 trigger event.

7.36 A34 Merge patient information—patient ID only

Event A34 has been retained for backwards compatibility only. From HL7 V2.3.1 onwards, event A40 (Merge patient—Patient identifier list) should be used instead.

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A34 trigger event is generated to reconcile or merge patient identifiers (only) on a corporate-wide PMI—that is, a patient ID (medical record number) only, not other details.
- (c) *Example* The pharmacy, diagnostic imaging and pathology systems should be notified that the patient records of the patient's two identification numbers should be merged.
- (d) *Usage notes* The usage of this trigger event depends on implementation issues. Some institutions may wish to notify all other systems of a corporate-wide patient ID change. Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing merge messages. Where other patient detail changes as a result of the merge, it will be necessary to transmit an A31 trigger event for the demographics.

7.37 A35 Merge patient information—account number only

Event A35 has been retained for backwards compatibility only. From HL7 V2.3.1 onwards, event A40 (Merge patient—Patient identifier list) should be used instead.

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A35 trigger event is generated when there occurs a merge of patient account numbers (financial) only. This will depend on the institution's implementation.
- (c) *Usage notes* Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing merge messages.

7.38 A36 Merge patient information—patient ID and account number

Event A36 has been retained for backwards compatibility only. From HL7 V2.3.1 onwards, event A40 (Merge patient—Patient identifier list) should be used instead.

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A36 trigger event is generated when both the patient ID (medical record number) and the patient account number have changed as a result of the merge.
- (c) *Usage notes* Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing merge messages.

7.39 A37 Unlink patient information

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A37 trigger event is generated to unlink two patient identifier segments previously transmitted via an A24 (link patient information) trigger event (see Clause 7.26).

7.40 A38 Cancel pre-admit

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A38 event is sent either to cancel an erroneous A05 (pre-admit a patient) trigger event or because of a decision not to pre-admit the patient.

7.41 A39 Merge person—external ID

Event A39 has been retained for backwards compatibility only. From HL7 V2.3.1 onwards, event A40 (Merge patient—Patient identifier list) should be used instead.

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A39 trigger event is used to signal a merge of records for a person that were incorrectly filed under two different external identifiers.

- (c) *Usage notes* The incorrect source external ID identified in the data element 'Prior Patient ID' (see MRG-4) will be merged with the required correct target external ID identified in the data element patient ID (see PID-2). The incorrect source external ID would then logically never be referenced in future transactions. It is noted that some systems could still physically keep this 'incorrect identifier' for audit trail purposes or other reasons associated with database index implementation requirements. Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing merge messages.

7.42 A40 Merge patient—patient identifier list

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A40 trigger event is used to signal a merge of records for a person that were incorrectly filed under two different identifiers.
- (c) *Usage notes* The incorrect source identifier identified in the data element 'Prior Patient Identifier List' (see MRG-1) will be merged with the required correct target identifier of the same identifier type code component identified in the data element 'Patient Identifier List' (see PID-3). The incorrect source identifier would then logically never be referenced in future transactions. Some systems could still physically keep this incorrect identifier for audit trail purposes or other reasons associated with database index implementation requirements. Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing merge messages.

7.43 A41 Merge account—patient account number

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A41 trigger event is used to signal a merge of records for an account that was incorrectly filed under two different account numbers.
- (c) *Usage notes* The incorrect source patient account number identified in the data element 'Prior Patient Account Number' (see MRG-3) will be merged with the correct target patient account number identified in the data element 'Patient Account Number' (see PID-18). The incorrect source patient account number would then logically never be referenced in future transactions. Some systems could still physically keep this incorrect identifier for audit trail purposes or other reasons associated with database index implementation requirements. Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing merge messages.

7.44 A42 Merge visit—visit number

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A42 trigger event is used to signal a merge of records for a visit that was incorrectly filed under two different visit numbers.
- (c) *Usage notes* The incorrect source visit number identified in the data element 'Prior Visit Number' (see MRG-5) will be merged with the required correct target visit number identified in the data element 'Visit Number' (see PV1 19). The incorrect source visit number would then logically never be referenced in future transactions. Some systems could still physically keep this incorrect identifier for audit trail purposes or other reasons associated with database index implementation requirements. Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing merge messages.

7.45 A43 Move patient information—patient identifier list

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A43 trigger event is used to signal a move of records for a person at the internal identifier level.
- (c) *Usage notes* Signals a move of records identified by 'Prior Patient Identifier List' (see MRG-1) from the incorrect source external identifier identified in the data element 'Prior Patient ID' (see MRG-4) to the correct target external identifier identified in the data element 'Patient ID' (see PID 2). Section 3.6.2 of the HL7 V2.4 protocol further discusses issues related to implementing move messages.

7.46 A44 Move account information—patient account number

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A44 trigger event is used to signal a merge of records for a person at the account identifier level.
- (c) *Usage notes* Signals a move of records identified by the data element 'Prior Patient Account Number' (see MRG-3) from the incorrect source internal identifier identified in the data element 'Prior Patient Identifier List' (see MRG-1) to the correct target internal identifier identified in the 'Patient Identifier List' (see PID-3). Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing move messages.

7.47 A45 Move visit information—visit number

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A45 trigger event is used to signal a merge of records for a person at the visit identifier level; that is, 'Visit Number' (see PV1-19) or 'Alternate Visit ID' (see PV1-50) associated with 'account number' (see PID-18) has moved to another account.
- (c) *Usage notes* Signals a move of records identified by the data element 'Prior Visit Number' (see MRG-5) or the 'Prior Alternate Visit ID' (see MRG-6) from the incorrect source account identifier identified in data element 'Prior Patient Account Number' (see MRG-3) to the correct target account identifier identified in data element 'Patient Account Number' (see PID-18). Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing merge messages.

7.48 A46 Change external ID

Event A46 has been retained for backwards compatibility only. From HL7 V2.3.1 onwards, event A40 (Merge patient—Patient identifier list) should be used instead.

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A46 trigger event is used to signal a change of an incorrectly assigned external ID value; that is, 'Patient ID' (see PID-2) has been changed.

- (c) *Usage notes* The 'incorrect source external ID' value is stored in data element 'prior patient ID' (see MRG-4) and will be changed to the 'correct target external ID' value stored in data element 'Patient ID' (see PID-2). The external ID involved in identifying the person may or may not represent a patient, who may or may not have accounts, which may or may not have visits included. There is no need to specify other subordinate identifiers. Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing change messages.

7.49 A47 Change patient identifier list

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A47 trigger event is used to signal that a change has been made at the patient identifier list level. That is, a single PID-3 patient identifier list value has been found to be incorrect and has been changed.
- (c) *Usage notes* The incorrect source patient identifier value is stored in data element 'Prior Patient Identifier List' (see MRG-1) and will be changed to the correct target patient identifier value stored in 'patient identifier list' (see PID-3). The identifier involved in identifying the patient may or may not have accounts which may or may not have visits. An A47 trigger event is intended for changing the value of the internal identifier without affecting other subordinate identifiers. Any other subordinate identifiers that were previously associated with the 'incorrect source identifier' are now associated with the 'correct target identifier'. Specification of these other subordinate identifiers is not required.

This event and the message syntax do, however, allow for the specification of 'new subordinate identifiers' (in addition to the PID-3 *Patient Identifier List* identifier). For those environments that may require changes to these other subordinate identifiers because of this A47 (change patient identifier list) event, it is required that the old and new identifiers be a 'tightly coupled' pair. Each superior identifier associated with this internal identifier should have the same value in both the PID and MRG segments. Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing change messages.

7.50 A48 Change alternate patient ID

Event A48 has been retained for backwards compatibility only. From HL7 V2.3.1 onwards, event A40 (Merge patient—Patient identifier list) should be used instead.

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A48 trigger event is used to signal a change of an incorrectly assigned alternate patient ID value. The alternate patient ID may or may not have accounts or visits.
- (c) *Usage notes* The incorrect source alternate patient ID value is stored in data element 'Prior Alternate Patient ID' (see MRG-2) and will be changed to the correct target alternate patient ID value stored in data element 'Alternate Patient ID' (see PID-4). Each superior identifier associated with this alternate patient identifier level should have the same value in both the PID and MRG segments.

7.51 A49 Change patient account number

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A49 trigger event is used to signal a change of an incorrectly assigned account number value. The patient account identifier may or may not have visits.
- (c) *Usage notes* The incorrect source account number value is stored in data element 'Prior Patient Account Number' (see MRG-3) and will be changed to the correct target account number value stored in data element 'Patient Account Number' (see PID-18). There is no need to specify other subordinate identifiers. Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing change messages.

7.52 A50 Change visit number

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A50 trigger event is used to signal a change of an incorrectly assigned visit number value.
- (c) *Usage notes* The incorrect source visit number value is stored in data element 'Prior Visit Number' (see MRG-5) and will be changed to the correct target visit number value stored in data element 'Visit Number' (see PV1-19). Each superior identifier associated with this visit number identifier level should have the same value in both the PID and MRG segments. Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing change messages.

7.53 A51 Change alternate visit ID

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A51 trigger event is used to signal a change of an incorrectly assigned alternate visit ID value.
- (c) *Usage notes* The incorrect source alternate visit ID value is stored in data element 'Prior Alternate Visit ID' (see MRG-6) and will be changed to the correct target alternate visit ID value stored in data element 'Alternate Visit ID' (see PV1 50). Section 3.6.2 of the HL7 V2.5 protocol further discusses issues related to implementing change messages.

7.54 A52 Cancel leave of absence for a patient

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A52 trigger event is sent when an A21 (patient goes on 'leave of absence') event is cancelled, either because of erroneous entry of the A21 event or because of a decision not to put the patient on 'leave of absence' after all.
- (c) *Usage notes* As there is no specific field for the cancel leave of absence date/time, data element 'Event Occurred' (see EVN-6) should contain the date/time the leave of absence was actually cancelled (but not necessarily recorded).

7.55 A53 Cancel patient returns from a leave of absence

The following applies:

- (a) *Status* Mandatory.
- (b) *Description* The A53 event is sent when an A22 (patient returns from 'leave of absence') event is cancelled, either because of erroneous entry of the A22 event or because of a decision not to return the patient from 'leave of absence' after all.
- (c) *Usage notes* As there is no specific field for the cancel leave of absence date/time, data element 'Event Occurred' (see EVN-6) should contain the date/time the return from LOA was actually cancelled (but not necessarily recorded).
- (d) *Data element* 'Expected LOA Return Date/Time' (see PV2-47) is used to communicate the date/time the patient is expected to return from leave of absence.

7.56 A54 Change attending doctor

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A54 event is issued as a result of a change in the attending doctor responsible for the treatment of a patient.
- (c) *Example* An A54 event can be used to notify the billing system that doctor's fees should be billed to the new doctor starting from the time stamp in the message.

7.57 A55 Cancel change attending doctor

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The A55 event is sent when an A54 (change attending doctor) event is cancelled, either because of erroneous entry of the A54 event or because of a decision not to change the attending doctor after all.
- (c) *Usage notes* Data element 'Attending Doctor' (see PV1-7) shall contain the patient's doctor prior to the change of attending doctor.

7.58 Q21/K21 Get person demographics (QBP) and response (RSP)

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* The get person demographics (QBP) and response (RSP) is designed for interaction between a client system and an MPI. The query consists of an identifier for a person, and the response is the demographics for that person.
- (c) *Usage notes* See chapter 5 of the HL7 V2.5 protocol for a detailed discussion about query/response messages.

7.59 Q22/K22 Find candidates (QBP) and response (RSP)

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* This query/response is designed for interaction between a client system and an MPI. The query consists of a set of demographics for a person, and the response is the list of candidates considered by the MPI to match that set.

- (c) *Usage notes* Each returned person, specified by a PID segment, can also have an optional QRI—Query Response Instance segment containing information about the quality of the match. See chapter 5 of the HL7 V2.5 protocol for a detailed discussion about query/response messages.

7.60 Q23/K23 Get corresponding identifiers (QBP) and response (RSP)

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* This query/response is designed for interaction between a client system and an MPI. The query consists of an identifier for a person, and the response is a list of identifiers for that person from the domains specified.
- (c) *Usage notes* See chapter 5 of the HL7 V2.5 protocol for a detailed discussion about query/response messages.

7.61 Q24/K24 Allocate identifiers (QBP) and response (RSP)

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* This query/response is designed for interaction between a client system and an MPI. The query consists of domains in which identifiers should be allocated. The response is new identifiers in those domains.
- (c) *Usage notes* This event is not meant to cause the creation of a new person record, or to bind identifiers to a particular person record. The events A28, ‘Add person information’ and A24, ‘Link patient information’ should be used for that purpose. This event is meant simply to reserve the use of identifiers. See chapter 5 of the HL7 V2.5 protocol for a detailed discussion about query/response messages.

7.62 A60 Update adverse reaction information

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* This trigger event is used when person or patient allergy information has changed. It is used in conjunction with a new allergy segment, the IAM – patient allergy information segment – unique identifier.
- (c) *Usage notes* The IAM segment supports action code/unique identifier mode update for repeating segments as defined in the HL7 V2.5 protocol, Section 2.10.4, ‘Modes for updating via repeating segments’.

7.63 A61 Change consulting doctor

The following applies:

- (a) *Status* Non-mandatory.
- (b) *Description* An A61 event is used as a result of a change in the consulting physician(s) for the treatment of a patient.
- (c) *Usage notes* The new consulting doctor(s) of the patient should appear in the data item ‘Consulting Doctor’ (see PV1-9) and could appear in a role segment for each new consulting physician. If a consulting doctor stops being consulting doctor for this patient-visit, the end date/time can be sent in the data item ‘Role End Date/Time’ (see ROL-6).