JSTRO

Integrating the Healthcare Enterprise

IHE-Japan Radiation Oncology Technical Framework Volume 2 - Transactions

Supplement Proposal for Enterprise Schedule Integration

Draft

May 12, 2009

削除: March 12, 2009

削除: March 2, 2009February 27, 2009

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1 Preface to Volume 2

1.1 Intended Audience

The intended audience of this document is:

- Technical staff of vendors planning to participate in the IHE initiative
- IT departments of healthcare institutions
- Experts involved in standards development
- Anyone interested in the technical aspects of integrating healthcare information systems

1.2 How this Document is Organized

Section 1 is the preface, describing the intended audience, related resources, and organizations and conventions used within this document.

Section 2 provides an overview of the concepts of IHE actors and transactions used in IHE to define the functional components of a distributed healthcare environment.

Section 3 defines transactions in detail, specifying the roles for each actor, the standards employed, the information exchanged, and in some cases, implementation options for the transaction.

Section 4 defines a set of payload bindings with transactions.

Section 5 defines the high level content specifications used for the payloads of the transactions.

Section 6 defines the reusable sections of content payloads.

Section 7 defines the lower level building blocks used in various sections.

1.3 Conventions Used in this Volume

This document has adopted the following conventions for representing the framework concepts and specifying how the standards upon which the IHE Technical Framework is based should be applied.

1.3.1 The Generic IHE Transaction Model

Transaction descriptions are provided in section 4. In each transaction description, the actors, the roles they play, and the transactions between them are presented as use cases.

The generic IHE transaction description includes the following components:

- Scope: a brief description of the transaction.

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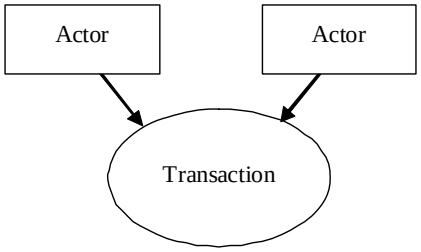
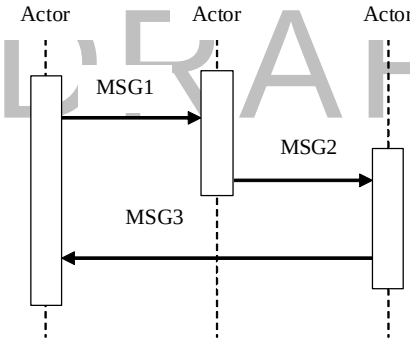
- Use case roles: textual definitions of the actors and their roles, with a simple diagram relating them, e.g.:



- *Referenced Standards*: the standards (stating the specific parts, chapters or sections thereof) to be used for the transaction.
- *Interaction Diagram*: a graphical depiction of the actors and transactions, with related processing within an actor shown as a rectangle and time progressing downward, similar to:



The interaction diagrams used in the IHE Technical Framework are modeled after those described in Grady Booch, James Rumbaugh, and Ivar Jacobson, *The Unified Modeling Language User Guide*, ISBN 0-201-57168-4. Simple acknowledgment messages are omitted from the diagrams for brevity.

- *Message definitions*: descriptions of each message involved in the transaction, the events that trigger the message, its semantics, and the actions that the message triggers in the receiver.

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1.4 Copyright Permissions

Health Level Seven, Inc., has granted permission to the IHE to reproduce tables from the HL7 standard. The HL7 tables in this document are copyrighted by Health Level Seven, Inc. All rights reserved.

Material drawn from these documents is credited where used.

1.5 Comments

The IHE sponsors welcome comments on this document and the IHE initiative. They should be directed to the discussion server at http://forums.rsna.org or to:

Director of Research
American Society for Therapeutic Radiology and Oncology (ASTRO)
8280 Willow Oaks Corporate Drive, Suite 500
Fairfax, VA 22031
ihero@astro.org

Co-Chair of IHE-Japan RO committee
Integrating the Healthcare Enterprise-Japan
504, Monteberude Dai-2-Todaimae
6-2-9, Hongo, Bunkyo,
Tokyo, 113-0033, Japan
ro-info@ihe-j.org

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2 Introduction

This document, the IHE Radiation Oncology Technical Framework (RO-TF), defines specific implementations of established standards. These are intended to achieve integration goals that promote appropriate exchange of medical information to coordinate the optimal patient care among care providers in different care settings. It is expanded annually, after a period of public review, and maintained regularly through the identification and correction of errata. The latest version of the document is always available via the Internet at http://www.ihe.net/Technical_Framework/index.cfm , where the technical framework volumes specific to the various healthcare domains addressed by IHE may be found.

The IHE Radiation Oncology Technical Framework identifies a subset of the functional components of the healthcare enterprises and health information networks, called IHE actors, and specifies their interactions in terms of a set of coordinated, standards-based transactions.

The other domains within the IHE initiative also produce Technical Frameworks within their respective areas that together form the IHE Technical Framework. Currently, the following IHE Technical Framework(s) are available:

- IHE IT Infrastructure Technical Framework
- IHE Cardiology Technical Framework
- IHE Eye Care Technical Framework
- IHE Laboratory Technical framework
- IHE Radiology Technical Framework
- IHE Patient Care Coordination Technical Framework

Where applicable, references are made to other technical frameworks. For the conventions on referencing other frameworks, see the preface of this volume.

2.1 Relationship to Standards

The IHE Technical Framework identifies functional components of a distributed healthcare environment (referred to as IHE actors), solely from the point of view of their interactions in the healthcare enterprise. At its current level of development, it defines a coordinated set of transactions based on standards (such as HL7, IETF, ASTM, DICOM, ISO, OASIS, etc.) in order to accomplish a particular use case. As the scope of the IHE initiative expands, transactions based on other standards may be included as required.

In some cases, IHE recommends selection of specific options supported by these standards. However, IHE does not introduce technical choices that contradict conformance to these standards. If errors in or extensions to existing standards are identified, IHE's policy is to report them to the appropriate standards bodies for resolution within their conformance and standards evolution strategy.

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IHE is therefore an implementation framework, not a standard. Conformance claims for products must still be made in direct reference to specific standards. In addition, vendors who have implemented IHE integration capabilities in their products may publish IHE Integration Statements to communicate their products' capabilities. Vendors publishing IHE Integration Statements accept full responsibility for their content. By comparing the IHE Integration Statements from different products, a user familiar with the IHE concepts of actors and integration profiles can determine the level of integration between them. See http://www.ihe.net/Resources/upload/ihe_integration_statements.pdf for the format of IHE Integration Statements.

2.2 Relationship to Product Implementations

The IHE actors and transactions described in the IHE Technical Framework are abstractions of the real-world healthcare information system environment. While some of the transactions are traditionally performed by specific product categories (e.g. HIS, Clinical Data Repository, Electronic Health record systems, Radiology Information Systems, Clinical Information Systems or Cardiology Information Systems), the IHE Technical Framework intentionally avoids associating functions or actors with such product categories. For each actor, the IHE Technical Framework defines only those functions associated with integrating information systems. The IHE definition of an actor should therefore not be taken as the complete definition of any product that might implement it, nor should the framework itself be taken to comprehensively describe the architecture of a healthcare information system.

The reason for defining actors and transactions is to provide a basis for defining the interactions among functional components of the healthcare information system environment. In situations where a single physical product implements multiple functions, only the interfaces between the product and external functions in the environment are considered to be significant by the IHE initiative. Therefore, the IHE initiative takes no position as to the relative merits of an integrated environment based on a single, all-encompassing information system versus one based on multiple systems that together achieve the same end.

2.3 Relation of this Volume to the Technical Framework

The IHE Technical Framework is based on actors that interact through transactions.

Actors are information systems or components of information systems that produce, manage, or act on information associated with operational activities in the enterprise.

Transactions are interactions between actors that transfer the required information through standards-based messages.

The implementation of the transactions described in this volume support the specification of Integration Profiles defined in Volume 1. The role and implementation of these transactions require the understanding of the Integration profile they support.

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削除: IHE Usage Conventions (included for reference)

2.4 HL7 Profiling Conventions

The HL7 tables included in this document have been modified from the HL7 2.5 standard document. Such a modification is called a profile. Refer to the HL7 2.5 standard for the meanings of specific columns in the table.

The profiling tables in this document leverage the ongoing HL7 profile definition. To maintain this specification at a generic level, the following differences have been introduced:

書式変更 ： 箇条書きと段落番号

- Message specifications do not indicate the cardinality of segments within a message.
- For fields composed of multiple components, there is no indication of the size of each component.
- Where a table containing enumerated values is referenced from within a segment profile table, the enumerated values table is not always present.
- The number of times a repeating field can repeat is not indicated.
- The conditions that would require inclusion of conditional fields are not defined when they depend on functional characteristics of the system implementing the transaction and they do not affect data consistency.

The following terms refer to the OPT column, which has been profiled:

R	Element required (always present)
R2	This is an IHE extension. If the sending application has data for the field, it is required to populate the field. If the value is not known, the field may not be sent.
O	Element optional (can be empty)
C	Element conditionally present (depending on presence or values of other elements)
B	Element used for backward compatibility (shall contain the same information as the new element defined in HL7)

For some HL7 transactions described in this document, IHE has strengthened the requirements on the use of selected attributes. These situations are explicitly documented in section 3 and in the appendices.

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2.5 HL7 Implementation Notes

2.5.1 Network Guidelines

The HL7 2.5 standard does not define a network communications protocol. The HL7 2.1 standard defines lower layer protocols in an appendix. These definitions were moved to the Implementation Guide in 2.2 and subsequent versions, but are not HL7 requirements. The IHE Framework makes these recommendations:

1. Applications shall use the Minimal Lower Layer Protocol defined in Appendix C of the HL7 Implementation Guide.
2. An application that wants to send a message (initiate a transaction) will initiate a network connection to start the transaction. The receiver application will respond with an acknowledgement or response to query but will not initiate new transactions on this network connection.

2.5.2 Message Control

According to the HL7 standard, each message shall begin with the MSH (message header) segment. Table 2.5-1 identifies all required fields in this message. This table shall be interpreted according to the HL7 Standard unless otherwise noted in section 2.4

Table 2.5-1 IHE Profile – MSH Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	1	ST	R		00001	Field Separator
2	4	ST	R		00002	Encoding Characters
3	227	HD	R	0361	00003	Sending Application
4	227	HD	R	0362	00004	Sending Facility
5	227	HD	R	0361	00005	Receiving Application
6	227	HD	R	0362	00006	Receiving Facility
7	26	TS	O		00007	Date/Time Of Message
8	40	ST	O		00008	Security
9	15	MSG	R		00009	Message Type
10	20	ST	R		00010	Message Control ID
11	3	PT	R		00011	Processing ID
12	60	VID	R		00012	Version ID
13	15	NM	O		00013	Sequence Number
14	180	ST	O		00014	Continuation Pointer
15	2	ID	O	0155	00015	Accept Acknowledgment Type
16	2	ID	O	0155	00016	Application Acknowledgment Type
17	3	ID	O	0399	00017	Country Code

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18	16	ID	C	0211	00692	Character Set
19	250	CE	O		00693	Principal Language Of Message
20	20	ID	O	0356	01317	Alternate Character Set Handling Scheme

Adapted from the HL7 Standard version 2.5

The IHE Technical Framework requires that applications support HL7-recommended values for the fields *MSH-1 Field Separator* and *MSH-2 Encoding Characters*.

Field *MSH-18 Character Set* shall only be valued if the message utilizes character sets other than ISO IR-6, also known as ASCII. For Japan, this field shall be valued as a repeating field designating ASCII and ISO IR87 (JIS X 0208 : Kanji, hiragana and katakana). Specifically, the field will be valued, as ASCII~ISO IR87.

2.5.3 Acknowledgement modes

Applications that receive HL7 messages shall send acknowledgments using the HL7 Original Mode (versus Enhanced Acknowledgment Mode).

The IHE Technical Framework provides for each HL7 message to be acknowledged by the appropriate HL7 acknowledgement message sent by the receiver of an HL7 message to its sender. Patient demographic (ADT) messages will receive an HL7 ACK message acknowledgement and order (OMG) messages will receive an ORG acknowledgement.

The segments of the ACK message listed below are required, and their detailed descriptions are provided in tables 2.5-1, 2.5-2 and corresponding notes. The ERR segment is optional and may be included if the *MSA-1 Acknowledgement Code* field identifies an error condition.

ACK	**Acknowledgement Message**	Chapter in HL7 2.5
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error Comments	2

The segments of the ORG message listed below are required and their detailed descriptions are provided in tables 2.5-1, 2.5-2 and corresponding notes. The ERR segment is mandatory will be included if the *MSA-1 Acknowledgement Code* field identifies an error condition.

ORG (Success)	General Order Message	Chapter in HL7 2.5
MSH	Message Header	2
MSA	Message Acknowledgement	2

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ORG (Error)	General Order Message	Chapter in HL7 2.5
MSH	Message Header	2
MSA	Message Acknowledgement	2
ERR	Error	2

Table 2.5-1 IHE Profile – MSA Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	2	ID	R	0008	00018	Acknowledgment Code
2	20	ST	R		00010	Message Control ID
3	80	ST	O		00020	Text Message
4	15	NM	O		00021	Expected Sequence Number
5	1	ID	O	0102	00022	Delayed Acknowledgment Type
6	100	CE	O	00023		Error Condition

Adapted from the HL7 Standard version 2.5

Field *MSA-2 Message Control ID* shall contain the Message ID from the *MSH-10 Message Control ID* of the incoming message for which this acknowledgement is sent.

Table 2.5-2 IHE Profile – ERR Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	80	ID	R		00024	Error code and location

Adapted from the HL7 Standard version 2.5

2.5.4 HL7 Versioning

The selection of a particular version of HL7 for any given HL7 based transaction within the Technical Framework is based upon a number of factors. These include:

- Whether the version of HL7 provides the functionality needed for the transaction.
- How widely the version of HL7 is supported at the time of specification

Since the transactions are self-contained communications, the implementation of each HL7 transaction may use a different version of HL7.

An application implementing an IHE transaction which uses HL7 messaging must comply with the message structure and contents defined by the specified version of HL7 and the Technical Framework. It is acceptable if the version (MSH-12) is higher than that specified in the Framework as long as the message structure and contents meet the requirements of the specification.

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2.5.5 Use of Coded Entities and Coding Schemes

IHE does not produce, maintain or otherwise specify a coding scheme or other resource for controlled terminology (coded entities). Where applicable, coding schemes required by the HL7 and DICOM standards take precedence. In the cases where such resources are not explicitly identified by the standards, implementations may utilize any resource (including proprietary or local) provided any licensing/copyright requirements are satisfied.

コメント [JW2]: This is an interesting statement of IHE-RAD. We may want to consider peitioning SNOMED for appropriate codes for nominal dose, treatment type, etc.

削除: <#>Abbreviations used in HL7 tables

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3 IHE Transactions

This section defines each IHE transaction in detail, specifying the standards used, and the information transferred.

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3.1 Patient registration

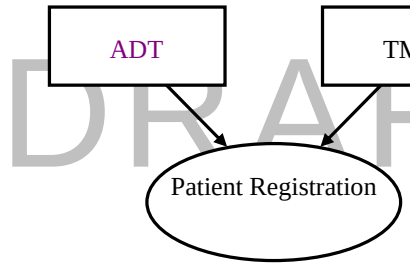
3.1.1 Scope

This transaction involves the patient information, including demographics, captured at the point of encounter. This may occur when the visit is scheduled, if that precedes patient arrival at the institution. This transaction is used for both in-patients (i.e., those who are assigned a bed at the facility) and outpatients (i.e., those who are not assigned a bed at the facility).

書式変更 ： 箇条書きと段落番号

3.1.2 Use Case Roles

Diagram TBD



Actor: ADT

Role: Adds and modifies patient demographic and encounter information.

Actor: Order Placer

Role: Receives patient and encounter information for use in order entry.

Actor: Department System/TMS

Role: Receives and stores patient and encounter information for use in fulfilling orders by the Department System Scheduler.

Actor: MPI

Role: Receives patient and encounter information from multiple ADT systems. Maintains unique enterprise-wide identifier for a patient.

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3.1.3 Referenced Standards

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HL7 2.5 Chapter 4

3.1.4 Interaction Diagram

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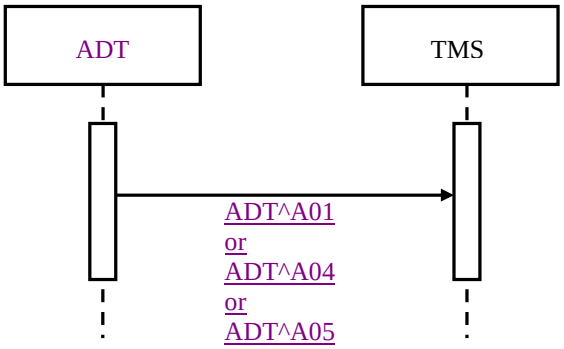
Diagram TBD



3.1.4.1 Admit/Register Patient

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3.1.4.1.1 Trigger Events

ADT – Patient Administration Message for TMS

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書式変更 ： 箇条書きと段落番号

3.1.4.1.2 Message Semantics

A01 – Admission of an in-patient into a facility

A04 – Registration of an outpatient for a visit of the facility

A05 – Pre-admission of an in-patient (i.e., registration of patient information ahead of actual admission).

書式変更 ： 箇条書きと段落番号

3.1.4.1.2.1EVN Segment

Table 3.1-1 identified required and optional fields of the EVN segment.

Table 3.1-1 IHE Profile – EVN Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	3	ID	O	0003	00099	Event Type Code
2	26	TS	R		00100	Recorded Date/Time
3	26	TS	O		00101	Date/Time Planned Event
4	3	IS	O	0062	00102	Event Reason Code

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5	250	XCN	O	0188	00103	Operator ID
6	26	TS	O		01278	Event Occurred

Adapted from the HL7 standard, version 2.5

Field *EVN-1 Event Type Code* is optional; however, if present, its value shall be equal to the second component of the field *MSH-9 Message Type*.

書式変更 ： 箇条書きと段落番号

3.1.4.1.2.2 PID Segment

Table 3.1-2 identified required and optional fields of the PID segment.

Table 3.1-2 IHE Profile – PID Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	4	SI	O		00104	Set ID - PID
2	20	CX	O		00105	Patient ID
3	250	CX	R		00106	Patient Identifier List
4	20	CX	O		00107	Alternate Patient ID - PID
5	250	XPN	R		00108	Patient Name
6	250	XPN	O		00109	Mother's Maiden Name
7	26	TS	R2		00110	Date/Time of Birth
8	1	IS	R	0001	00111	Administrative Sex
9	250	XPN	O		00112	Patient Alias
10	250	CE	O	0005	00113	Race
11	250	XAD	O		00114	Patient Address
12	4	IS	O	0289	00115	County Code
13	250	XTN	O		00116	Phone Number - Home
14	250	XTN	O		00117	Phone Number - Business
15	250	CE	O	0296	00118	Primary Language
16	250	CE	O	0002	00119	Marital Status
17	250	CE	O	0006	00120	Religion
18	250	CX	C		00121	Patient Account Number
19	16	ST	O		00122	SSN Number - Patient
20	25	DLN	O		00123	Driver's License Number - Patient
21	250	CX	O		00124	Mother's Identifier
22	250	CE	O	0189	00125	Ethnic Group
23	250	ST	O		00126	Birth Place
24	1	ID	O	0136	00127	Multiple Birth Indicator
25	2	NM	O		00128	Birth Order
26	250	CE	O	0171	00129	Citizenship

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27	250	CE	O	0172	00130	Veterans Military Status
28	250	CE	O	0212	00739	Nationality
29	26	TS	O		00740	Patient Death Date and Time
30	1	ID	O	0136	00741	Patient Death Indicator
31	1	ID	O	0136	01535	Identity Unknown Indicator
32	20	IS	O	0445	01536	Identity Reliability Code
33	26	TS	O		01537	Last Update Date/Time
34	241	HD	O		01538	Last Update Facility
35	250	CE	O	0446	01539	Species Code
36	250	CE	O	0447	01540	Breed Code
37	80	ST	O		01541	Strain
38	250	CE	O	0429	01542	Production Class Code
39	250	CWE	O	0171	01840	Tribal Citizenship

Adapted from the HL7 standard, version 2.5

Explanatory text TBD.

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3.1.4.1.2.3 PV1 Segment

Table 3.1-3 identified required and optional fields of the PID segment.

Table 3.1-2 IHE Profile – PV1 Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	4	SI	O		00131	Set ID - PV1
2	1	IS	R	0004	00132	Patient Class
3	80	PL	C		00133	Assigned Patient Location
4	2	IS	O	0007	00134	Admission Type
5	250	CX	O		00135	Preadmit Number
6	80	PL	O		00136	Prior Patient Location
7	250	XCN	O	0010	00137	Attending Doctor
8	250	XCN	O	0010	00138	Referring Doctor
9	250	XCN	O	0010	00139	Consulting Doctor
10	3	IS	O	0069	00140	Hospital Service
11	80	PL	O		00141	Temporary Location
12	2	IS	O	0087	00142	Preadmit Test Indicator
13	2	IS	O	0092	00143	Re-admission Indicator
14	6	IS	O	0023	00144	Admit Source
15	2	IS	O	0009	00145	Ambulatory Status
16	2	IS	O	0099	00146	VIP Indicator

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17	250	XCN	O	0010	00147	Admitting Doctor
18	2	IS	O	0018	00148	Patient Type
19	250	CX	C		00149	Visit Number
20	50	FC	O	0064	00150	Financial Class
21	2	IS	O	0032	00151	Charge Price Indicator
22	2	IS	O	0045	00152	Courtesy Code
23	2	IS	O	0046	00153	Credit Rating
24	2	IS	O	0044	00154	Contract Code
25	8	DT	O		00155	Contract Effective Date
26	12	NM	O		00156	Contract Amount
27	3	NM	O		00157	Contract Period
28	2	IS	O	0073	00158	Interest Code
29	4	IS	O	0110	00159	Transfer to Bad Debt Code
30	8	DT	O		00160	Transfer to Bad Debt Date
31	10	IS	O	0021	00161	Bad Debt Agency Code
32	12	NM	O		00162	Bad Debt Transfer Amount
33	12	NM	O		00163	Bad Debt Recovery Amount
34	1	IS	O	0111	00164	Delete Account Indicator
35	8	DT	O		00165	Delete Account Date
36	3	IS	O	0112	00166	Discharge Disposition
37	47	DLD	O	0113	00167	Discharged to Location
38	250	CE	O	0114	00168	Diet Type
39	2	IS	O	0115	00169	Servicing Facility
40	1	IS	B	0116	00170	Bed Status
41	2	IS	O	0117	00171	Account Status
42	80	PL	O		00172	Pending Location
43	80	PL	O		00173	Prior Temporary Location
44	26	TS	O		00174	Admit Date/Time
45	26	TS	O		00175	Discharge Date/Time

Adapted from the HL7 standard, version 2.5

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3.1.4.1.2.4 Expected Actions

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3.1.4.2 Cancel Admit/Register Patient

3.1.4.2.1 Trigger Events

The following events will trigger one of the Admit/Register messages:

書式変更 ： 箇条書きと段落番号

- A11 – Admission of an in-patient into a facility or registration of an outpatient for a visit of the facility has been cancelled due to error in the information or the decision not to admit/register patient after all.
- A38 – Pre-admission of an in-patient (i.e., registration of patient information ahead of actual admission) has been cancelled due to error in the information or the decision not to admit/register patient after all.

書式変更 ： 箇条書きと段落番号

3.1.4.2.2 Message Semantics

TBD

書式変更 ： 箇条書きと段落番号

3.1.4.2.2.1 PID Segment

3.1.4.2.2.2 EVN Segment

3.1.4.2.2.3 PV1 Segment

3.1.4.2.2.4 Expected Actions

TBD

3.2 RO-ESI-01: Create Radiotherapy Parent Order

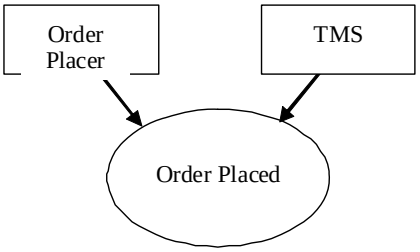
3.2.1 Scope

This transaction is used by the Order Placer to place a new order with the TMS.

削除: 04/9/2009

削除: 03/12/2009

3.2.2 Use Case Roles



Actor: Order Placer

Role: Places Radiotherapy parent orders

Actor: TMS

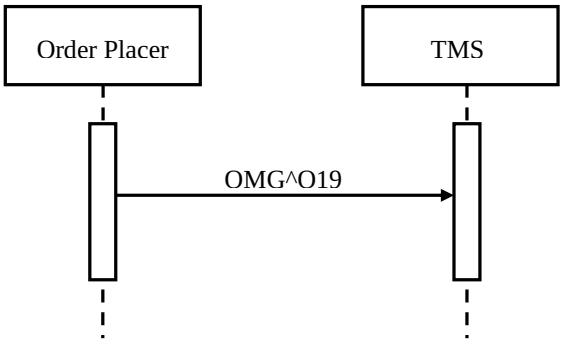
Role: Receives and processes Radiotherapy parent orders.

3.2.3 Referenced Standards

HL7 2.5 Chapter 4

3.2.4 Interaction Diagram

Diagram TBD



削除: 04/9/2009

削除: 03/12/2009

3.2.4.1 Create Radiotherapy Parent Order

3.2.4.1.1 Trigger Events

OMG – The Order Placer places a new order for the TMS

ORG –The TMS acknowledges receipt of the parent order.

3.2.4.1.2 Message Semantics

HL7 2.5 Chapter 4 OMG message. Refer to HL7 Standard for general message semantics.

The order start date is required to be sent if known in the TQ1, ORC, and OBR segments. (TQ1-7, ORC-7 and OBR-27).

Note: Additional qualifications to the level of specification and HL7 profiling are stated in section 2.5.

Required segments are listed below. Other segments are optional.

OMG	General Order Message	Chapter in HL7 2.5
MSH	Message Header	2
PID	Patient Identification	3
PV1	Patient Visit	3
ORC	Common Order	4
OBR	Order Detail	4

The OBX segment is an optional repeating segment that is required if nominal dose and /or treatment intent are known. If this segment is present, it is mandatory to follow certain rules (see section 3.2.4.1.2.6).

削除: following

削除: XX

OMG	General Order Message	Chapter in HL7 2.5
OBX	Observation/Result	7

The TQ1 segment is an optional segment that is required if the desired start date is known. If this segment is present, it is mandatory to follow certain rules (see section 3.2.4.1.2.7).

削除:

削除: 04/9/2009

削除: 03/12/2009

Each message shall be acknowledged by the HL7 ORG message sent by the receiver of the order message to its sender. See section 2.5.3 “Acknowledgement Modes” for definition and discussion of the ORG message.

書式変更 ： 箇条書きと段落番号

3.2.4.1.2.1 MSH Segment

MSH segment shall be constructed as defined in the section 2.5.2 “Message Control”.

削除: X.X.X

Field MSH-9 Message Type shall have at least two components. The first component shall have a value of “OMG”; the second component shall have value of O19. The third component is optional; however, if present, it shall have a value of OMG_O19.

コメント [SS5]: These need to be specified as per IHE-J requirements (similar to IHE-J RAD) for Country Code and Character Set.
Jeff: Country Code is not required because currency or other country-specific data is included. Character set is included in MSH section.

Each message shall be acknowledged by the HL7 ORG message sent by the receiver of OMG message to its sender. See section 2.5.3“Acknowledgement Modes” for definition and discussion of the ORG message.

削除: MSH-17 through MSH-19

3.2.4.1.2.2 PID Segment

All of the fields in PID segment are optional, except those listed in table 3.2-1. See section 3.1.4.1.2.2 for the list of all fields of the PID segment.

削除: X.X.X

書式変更 ： 箇条書きと段落番号

削除:

削除: XXX

削除: .

削除: 3.1.4.1.2.3 (insert cross reference here)

削除: 1

Table 3.2-1. IHE Profile – PID segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
3	250	CX	R		00106	Patient Identifier List
5	250	XPN	R		00108	Patient Name
18	250	CX	C		00121	Patient Account Number

Adapted from the HL7 Standard, version 2.5

コメント [JK6]: What is the condition that this field is filled. This is a question for the Japanese stakeholders

3.2.4.1.2.3 PV1 Segment

All of the fields in PV1 segment are optional, except those listed in table 3.2-2 (immediately below, insert cross reference). See sec. 3.1.4.1.2.3 for the list of all fields of the PV1 segment.

Table 3.2-2. IHE profile - PV1 Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
2	1	IS	R	0004	00132	Patient Class
8	250	XCN	R2	0010	00138	Referring Doctor
19	250	CX	C		00149	Visit Number
51	1	IS	C	0326	01226	Visit Indicator

コメント [SS7]: Optionality needs to be resolved

コメント [SS8]: Optionality needs to be resolved

コメント [SS9]: Optionality needs to be resolved

コメント [SS10]: Optionality needs to be resolved

削除: 04/9/2009

削除: 03/12/2009

At least one of the fields PID-18 Patient Account Number or PV1-19 Visit Number shall be valued. Additional requirements for the presence of value in these fields may be documented in regional or national appendices to the IHE Technical Framework.

The national requirements for Japan are…

Field PV1-51 Visit Indicator shall be valued with value “V” if the field PV1-19 Visit Number is present. May be omitted otherwise.

コメント [SS11]: Need to determine if this text is needed, and if so, further clarification of Japanese requirements.

書式変更 ： 箇条書きと段落番号

3.2.4.1.2.4 ORC Segment

ORC segment conveys common order information.

削除: XX.XX

Table 3.2-3 IHE Profile – ORC Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	2	ID	R	0119	00215	Order Control
2	22	EI	C		00216	Placer Order Number
3	22	EI	C		00217	Filler Order Number
4	22	EI	O		00218	Placer Group Number
5	2	ID	O	0038	00219	Order Status
6	1	ID	O	0121	00220	Response Flag
7	200	TQ	R		00221	Quantity/Timing
8	200	EIP	O		00222	Parent
9	26	TS	R		00223	Date/Time of Transaction
10	250	XCN	O		00224	Entered By
11	250	XCN	O		00225	Verified By
12	250	XCN	R		00226	Ordering Provider
13	80	PL	O		00227	Enterers Location
14	250	XTN	O		00228	Callback Phone Number
15	26	TS	O		00229	Order Effective Date/Time
16	250	CE	O		00230	Order Control Code Reason

削除: R

削除: O

削除: C

削除: B

削除: O

Field *ORC-1 Order Control* must be valued as “NW”

This field is required to be valued if the Order Placer places the parent order. If the TMS places the parent order, the Filler Order number shall be used (see RO-ESI-08). The Field *ORC-2 Placer Order Number* shall be unique within the Order Placer and will be used by all Child Orders to reference this parent order.

削除: 04/9/2009

削除: 03/12/2009

Field *ORC-3 Filler Order Number* shall not be present when the Order Placer places the order..

Field *ORC-5 Order Status* shall not be present.

The fourth component, *Start Date/Time* in Field *ORC-7 Quantity/Timing* shall contain the earliest date/time that the first child order can be scheduled for (default: date/time of this transaction). This field will contain the same value as *TQ1-7 Start DateTtime.*

Field *ORC-8 Parent* shall not be present.

The action to be performed in the OMG message is defined by the Order Control code passed as part of the message. HL7 defines a number of Order Control codes.

The order control codes below shall be supported.

Supported Order Control Codes

Value	Description
NW	New order

書式変更 ： 箇条書きと段落番号

3.2.4.1.2.5 OBR Segment

削除: XX.XX

Table 3.2-4 IHE Profile – OBR Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	4	SI	O		00237	Set ID – OBR
2	22	EI	C		00216	Placer Order Number
3	22	EI	C		00217	Filler Order Number
4	250	CE	R		00238	Universal Service Identifier
5	2	ID	B		00239	Priority – OBR
6	26	TS	B		00240	Requested Date/Time
7	26	TS	O		00241	Observation Date/Time #
8	26	TS	O		00242	Observation End Date/Time #
9	20	CQ	O		00243	Collection Volume *
10	250	XCN	O		00244	Collector Identifier *
11	1	ID	O	0065	00245	Specimen Action Code *
12	250	CE	O		00246	Danger Code
13	300	ST	O		00247	Relevant Clinical Information
14	26	TS	B		00248	Specimen Received Date/Time *
15	300	SPS	B		00249	Specimen Source
16	250	XCN	O		00226	Ordering Provider
17	250	XTN	O		00250	Order Callback Phone Number
18	60	ST	O		00251	Placer Field 1
19	60	ST	O		00252	Placer Field 2

削除: R

削除: O

削除: 04/9/2009

削除: 03/12/2009

20	60	ST	O		00253	Filler Field 1 +
21	60	ST	O		00254	Filler Field 2 +
22	26	TS	C		00255	Results Rpt/Status Chng - Date/Time +
23	40	MOC	O		00256	Charge to Practice +
24	10	ID	O	0074	00257	Diagnostic Serv Sect ID
25	1	ID	C	0123	00258	Result Status +
26	400	PRL	O		00259	Parent Result +
27	200	TQ	B		00221	Quantity/Timing
28	250	XCN	O		00260	Result Copies To
29	200	EIP	O		00261	Parent
30	20	ID	O	0124	00262	Transportation Mode
31	250	CE	O		00263	Reason for Study
32	200	NDL	O		00264	Principal Result Interpreter +
33	200	NDL	O		00265	Assistant Result Interpreter +
34	200	NDL	O		00266	Technician +
35	200	NDL	O		00267	Transcriptionist +
36	26	TS	O		00268	Scheduled Date/Time +
37	4	NM	O		01028	Number of Sample Containers *
38	250	CE	O		01029	Transport Logistics of Collected Sample *
39	250	CE	O		01030	Collector's Comment *
40	250	CE	O		01031	Transport Arrangement Responsibility
41	30	ID	O	0224	01032	Transport Arranged
42	1	ID	O	0225	01033	Escort Required
43	250	CE	O		01034	Planned Patient Transport Comment
44	250	CE	O	0088	00393	Procedure Code
45	250	CE	O	0340	01316	Procedure Code Modifier
46	250	CE	O	0411	01474	Placer Supplemental Service Information

コメント [JW12]: R2?

Field OBR-4 Universal Service Identifier shall be populated with a JJ1017 code specific to radiation oncology.

コメント [JW13]: This needs additional details to be provided by IHE-RO-J after JJ1017 codes are issued..

Per the HL7 Standard, IHE recommends that the fields in ORC and OBR segments given in the following table contain the same information.

削除: 04/9/2009

削除: 03/12/2009

Identical Element Mappings between ORC and OBR Segments

Element Name	ORC Segment Element	OBR Segment Element	TQ1 Segment Element
Placer Order Number	ORC-2	OBR-2	
Filler Order Number	ORC-3	OBR-3	
Quantity/Timing	ORC-7	OBR-27	TQ1-7
Parent	ORC-8	OBR-29	

削除: Element Name . . . [1]

書式変更 : 箇条書きと段落番号

3.2.4.1.2.6 OBX Segment

The OBX segment will be used to transmit nominal dose and treatment intent if available. There may be 0,1, or 2 OBX segments.

削除: XX.XX

Table 3.2-5. IHE Profile – OBX Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	4	SI	O		00569	Set ID – OBX
2	2	ID	R	0125	00570	Value Type
3	250	CE	R		00571	Observation Identifier
4	20	ST	O		00572	Observation Sub-ID
5	99999[1]	varies	R		00573	Observation Value
6	250	CE	C		00574	Units
7	60	ST	O		00575	References Range
8	5	IS	O	0078	00576	Abnormal Flags
9	5	NM	O		00577	Probability
10	2	ID	O	0080	00578	Nature of Abnormal Test
11	1	ID	R	0085	00579	Observation Result Status
12	26	TS	O		00580	Effective Date of Reference Range
13	20	ST	O		00581	User Defined Access Checks
14	26	TS	O		00582	Date/Time of the Observation
15	250	CE	O		00583	Producer's ID
16	250	XCN	O		00584	Responsible Observer
17	250	CE	O		00936	Observation Method
18	22	EI	O		01479	Equipment Instance Identifier
19	26	TS	O		01480	Date/Time of the Analysis

削除: C

削除: C

a) [1] The length of the observation field is variable, depending upon value type. See *OBX-2 value type*.

削除: 04/9/2009

削除: 03/12/2009

Nominal dose will always be communicated with a unit of measurement of Gray and a data type of NM. Treatment intent will be one of the three following values: PALLIATIVE, CURATIVE, or PROPHYLACTIC and a data type of ST.

Each OBX segment in a message will have a unique observation identifier.

Field *OBX-11 Result status* shall be valued as F [Final].

Sample:

OBX|1|NM|Nominal Dose||60|Gy|||||F|||||||

OBX|2|ST|Treatment Intent||PALLIATIVE |||||F|||||||

削除: <#>For use later on:

書式変更 ： 箇条書きと段落番号

3.2.4.1.2.7 TQ1 Segment

The following TQ1 segment was introduced with HL7 Version 2.5 and conveys timing and schedule information.

削除: This segment is optional, but if it is present then the information in the elements “Quantity” (TQ1-2) together with “Start date/time” (TQ1-7) shall be identical to the information in ORC and OBR segments “Quantity/Timing” (ORC-7 and OBR-27).

削除: XX.XX

Table 3.2-6 IHE Profile – TQ1 Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	4	SI	O		01627	Set ID - TQ1
2	20	CQ	O		01628	Quantity
3	540	RPT	O	0335	01629	Repeat Pattern
4	20	TM	O		01630	Explicit Time
5	20	CQ	O		01631	Relative Time and Units
6	20	CQ	O		01632	Service Duration
7	26	TS	R		01633	Start date/time
8	26	TS	O		01634	End date/time
9	250	CWE	O	0485	01635	Priority
10	250	TX	O		01636	Condition text
11	250	TX	O		01637	Text instruction
12	10	ID	C	0427	01638	Conjunction
13	20	CQ	O		01639	Occurrence duration
14	10	NM	O		01640	Total occurrence's

削除: O

削除: 2

Field *ORC-7 Quantity/Timing* shall contain the earliest date/time that the first child order can be scheduled for (default: date/time of this transaction). The information in the element *TQ1-7 Start date/time* shall be identical to the information in the fourth component, *Start Date/Time* in *ORC-7 Quantity/Timing*.

削除: 04/9/2009

削除: 03/12/2009

3.2.4.1.2.8 Expected Actions

The TMS shall accept the order information for fulfillment. If error in data prevents it from fulfilling the order, it shall notify the Order Placer by returning proper information in the ORG message.

削除: 04/9/2009

削除: 03/12/2009

3.3 RO-ESI-02: Create Radiotherapy Delivery Child Order

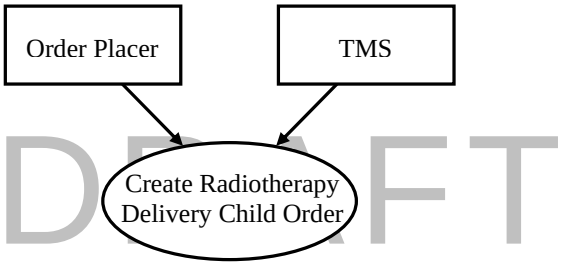
3.3.1 Scope

This transaction is used by the TMS to inform the Order Placer that a radiation treatment has been scheduled. Each treatment fraction is represented in an individual ORC/OBR/TQ1 triplet combination of segments, but multiple ORC/OBR/TQ1 triplets combined segments may be placed in one child order. Scheduling signifies that a precise time assignment has been made for the radiation treatment. Scheduling of other oncology events is out of the scope of this transaction.

コメント [JW14]: Josia proposes that the TQ1 segment be removed from the main body of the framework.

3.3.2 Use Case Roles

Diagram TBD



Actor: Order Placer

Role: Receives and displays scheduled radiation treatment information from the TMS

Actor: TMS

Role: Schedules radiation treatment procedures

3.3.3 Referenced Standards

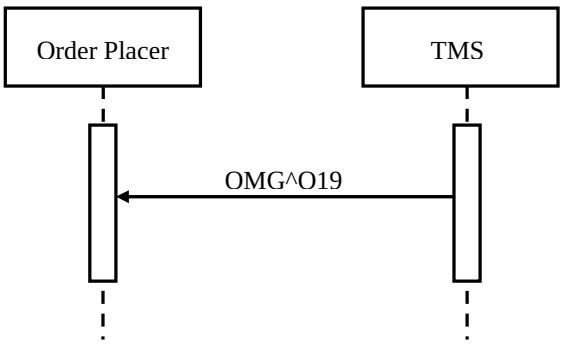
HL7 2.5 Chapter 4

3.3.4 Interaction Diagram

Diagram TBD

削除: 04/9/2009

削除: 03/12/2009



3.3.4.1 Create Radiotherapy Delivery Child Order

3.3.4.1.1 Trigger Events

OMG – The TMS schedules a treatment

ORG –The Order Placer acknowledges receipt of the child order.

3.3.4.1.2 Message Semantics

The TMS uses the OMG message to convey necessary scheduled treatment information.

OMG message. Refer to HL7 2.5 Chapter 4 for general message semantics.

ORG message. Refer to HL7 Chapter 4 for general message semantics. See section. 2.5.2 and 2.5.3 of this document for MSH and MSA segment definition.

Note: Additional qualifications to the level of specification and HL7 profiling are stated in section 2.5..

Required segments are listed below. Other segments are optional.

OMG	General Order Message	Chapter in HL7 2.5
MSH	Message Header	2
PID	Patient Identification	3
PV1	Patient Visit	3
ORC	Common Order	4
OBR	Order Detail	4
TQ1	Timing/Quantity	4

削除: d

削除: HL7 2.5 Chapter 4

削除: Standard

削除: See sec. xx of this document for

削除: MSH. HL7 2.5 Chapter 4

削除: Standard

削除: xx

削除: 04/9/2009

削除: 03/12/2009

Each message shall be acknowledged by the HL7 ORG message sent by the receiver of the order message to its sender. See section 2.5.3 “Acknowledgement Modes” for definition and discussion of the ORG message.

3.3.4.1.2.1 MSH Segment

MSH segment shall be constructed as defined in the section 2.5.2 “Message Control”.

Field MSH-9 Message Type shall have at least two components. The first component shall have a value of “OMG”; the second component shall have value of O19. The third component is optional; however, if present, it shall have a value of OMG_O19.

Each message shall be acknowledged by the HL7 ORG message sent by the receiver of OMG message to its sender. See section 2.5.3“Acknowledgement Modes” for definition and discussion of the ORG message.

3.3.4.1.2.2 PID Segment

All of the fields in PID segment are optional, except those listed in table 3.3-1. See section 3.1.4.1.2.2 for the list of all fields of the PID segment.

Table 3.3-1. IHE Profile – PID segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
3	250	CX	R		00106	Patient Identifier List
5	250	XPN	R		00108	Patient Name
18	250	CX	C		00121	Patient Account Number

The TMS will use the PID-3 Patient Identifier List to convey the Patient ID uniquely identifying the patient.

3.3.4.1.2.3 PV1 Segment

All of the fields in PV1 segment are optional, except those listed in table 3.3-2 (immediately below. See sec. 3.1.4.1.2.3 for the list of all fields of the PV1 segment.

Table 3.3-2. IHE profile - PV1 Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
2	1	IS	R	0004	00132	Patient Class

コメント [JW15]: I think the TQ1 needs to stand.

削除: ORG Success ORG (Success) [2]

書式変更 : 箇条書きと段落番号

削除: X.X.X

コメント [JW16]: Need to do ORG message specification with RO-ESI-01. We could refer to this in a top-level Implementation section as does IHE RAD.

削除: <#>MSA Segment and ORG message definition

書式変更 : 箇条書きと段落番号

削除: XXX

削除: xxx (insert cross reference here)

コメント [SS17]: Japan intends to use PAM at some point, which may affect the entire approach to patient identification

コメント [JW18]: I don’t think that PAM comes into play here since this is not patient administrative management so much as patient identification. However, the framework is lacking in patient administration management (patient registration, changes, merge, etc) and I think this needs to be addressed before public comment. I propose we follow IHE-RAD. The patient registration section is my proposal.

コメント [JK19]: Describe “condition” under which this will appear. Responsibility:IHE-RO-J.

削除: Alternatively, the following could be required by the HIS [3]

コメント [JW21]: IHE profiles generally specify the origin of this patient identifier. This is do [4]

削除: 04/9/2009

削除: 03/12/2009

19	250	CX	C		00149	Visit Number
51	1	IS	C	0326	01226	Visit Indicator

コメント [SS22]: Optionality needs to be resolved

コメント [SS23]: Optionality needs to be resolved

コメント [SS24]: Optionality needs to be resolved

コメント [SS25]: Need to determine if this text is needed, and if so, further clarification of Japanese requirements.

At least one of the fields PID-18 Patient Account Number or PV1-19 Visit Number shall be valued. Additional requirements for the presence of value in these fields may be documented in regional or national appendices to the IHE Technical Framework.

Field PV1-51 Visit Indicator shall be valued with value "V" if the field PV1-19 Visit Number is present. May be omitted otherwise.

3.3.4.1.2.4 ORC Segment

ORC segment conveys order information. A parent order ORC segment is not required, and the Order Placer shall not rely on its presence. The child order ORC conveys common order information about the treatment schedule events (child orders) and contains a reference to the parent order (ORC-8).

All of the fields in ORC segment are optional, except those listed in table 3.3-3 immediately below. See sec. 3.2.4.1.2.4 for the list of all fields of the ORC segment.

削除: XX.XX

Table 3.3-3 IHE Profile – ORC Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	2	ID	R	0119	00215	Order Control
3	22	EI	R		00217	Filler Order Number
5	2	ID	R	0038	00219	Order Status
7	200	TQ	B		00221	Quantity/Timing
8	200	EIP	R		00222	Parent

削除: 2 . . . [5]

削除: 4 . . . [6]

削除: 6 . . . [7]

削除: 9 . . . [8]

Each radiation treatment scheduled in response to a single radiotherapy parent order is represented by an ORC-OBR-TQ1 triplet.

Field *ORC-1 Order Control* for each child order must be valued as "CH".

削除:

Field *ORC-2 Placer Order Number* shall be omitted.

Field *ORC-3 Filler Order Number* shall be present in each child ORC in the OMG message, and each Filler Order Number shall be unique within the TMS.

Field *ORC-5 Order Status* shall be valued as an "SC" for each child ORC in the OMG message.

The fourth component of Field *ORC-7 Quantity/Timing*, *Start Date/Time*, shall contain the scheduled date/time of the scheduled appointment. The information shall be identical to the information in *TQ1-7 Start date/time.*

削除: quantity/

削除: 04/9/2009

削除: 03/12/2009

Field *ORC-8 Parent* shall be the Order Number from the Parent Order. If the Order Placer created the parent order, the placer order number shall be in ORC-8:1. If the TMS created the parent order, then the filler order number shall be in ORC-8:2. The parent order number shall be present in each child ORC in the OMG message describing the parent order to which the scheduled treatments events belong.

The action to be performed in the OMG message is defined by the Order Control code passed as part of the message. HL7 defines a number of Order Control codes.

The order control codes below shall be supported.

Supported Order Control Codes

Value	Description
CH	Child Order

Supported Order Status Codes

Value	Description
SC	In Process, Scheduled

3.3.4.1.2.5 OBR Segment

Table XX.XX IHE Profile – OBR Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
2	22	EI	O		00216	Placer Order Number
3	22	EI	R		00217	Filler Order Number
4	250	CE	R		00238	Universal Service Identifier
13	300	ST	R2		00247	Relevant Clinical Information
27	200	TQ	B		00221	Quantity/Timing
29	200	EIP	O		00261	Parent

Field OBR-4 Universal Service Identifier shall be populated with a JJ1017 code specific to radiation oncology.

Field *OBR-13 Relevant Clinical Info* shall be populated if patient record contains any medical alerts or patient instructions (e.g. empty bladder prior to treatment) that may be relevant to the order and, in particular, need to be communicated to the technologist or patient.

Per the HL7 Standard, IHE recommends that the fields in ORC and OBR segments given in the following table contain the same information.

削除:
削除: Placer
削除: It
書式変更 ： 箇条書きと段落番号
削除: 1
削除: 5
削除: O
削除: 14
削除: 28
削除: 30
コメント [JW26]: This needs additional details. Is this true for the child order as it is for the parent? Need to confirm.
削除: 04/9/2009
削除: 03/12/2009

削除: Element Name [14]

Identical Element Mappings between ORC and OBR Segments

Element Name	ORC Segment Element	OBR Segment Element	TQ1 Segment Element
Placer Order Number	ORC-2	OBR-2	
Filler Order Number	ORC-3	OBR-3	
Quantity/Timing	ORC-7	OBR-27	TQ1-7
Parent	ORC-8	OBR-29	

書式変更 ： 箇条書きと段落番号

3.3.4.1.2.6 TQ1 Segment

The following TQ1 segment was introduced with HL7 Version 2.5 and conveys timing and schedule information. This segment is optional, but if it is present then the intormation in the elements “Quantity” (TQ1-2) together with “Start date/time” (TQ1-7) shall be identical to the information in ORC and OBR segments “Quantity/Timing” (ORC-7 and OBR-27).

削除: TQ1 conveys schedule information for each child order.

Table XX.XX IHE Profile – TQ1 Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
7	26	TS	R2		01633	Start date/time

削除: 1 [15]
削除: 2 [16]
削除: 3 [17]
コメント [JW27]: I believe that date/time is required to be present. Need to discuss with Josia.
削除: 8 [18]

Field *TQ1-7 Start date/time* shall contain both the date and the time of the scheduled radiotherapy delivery.

書式変更 ： 箇条書きと段落番号

3.3.4.1.2.7 Expected Actions

The Order Placer shall accept the scheduled treatment events/child order information for fulfillment. If an error in the data prevents it from accepting any one of the child orders, it shall reject the message and notify the TMS by returning proper information in the ORG message.

コメント [JW28]: Need to specify how discrete this should be. Probably should make use of the full ORG message capabilities. The current draft mandates only an MSA and ERR segment.

書式変更 ： 箇条書きと段落番号

削除: 04/9/2009
削除: 03/12/2009

3.4 RO-ESI-03: Modify Radiotherapy Child Order

3.4.1 Scope

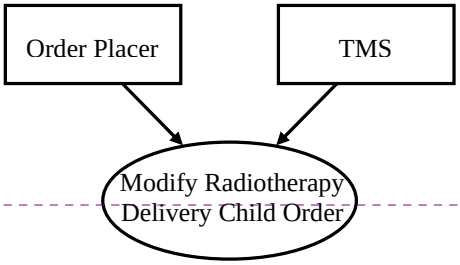
This transaction is used by the TMS to modify a scheduled treatment child order previously sent to the Order Placer.

削除: with

書式変更 ： 箇条書きと段落番号

3.4.2 Use Case Roles

Diagram TBD



削除:

Actor: TMS

Role: Changes the date/time or content of a Radiotherapy scheduled treatment.

削除: Modifies

削除: child order

Actor: Order Placer

Role: Receives update and changes the referenced Radiotherapy Child Order.

削除: Modifies

書式変更 ： 箇条書きと段落番号

3.4.3 Referenced Standards

HL7 2.5 Chapter 4

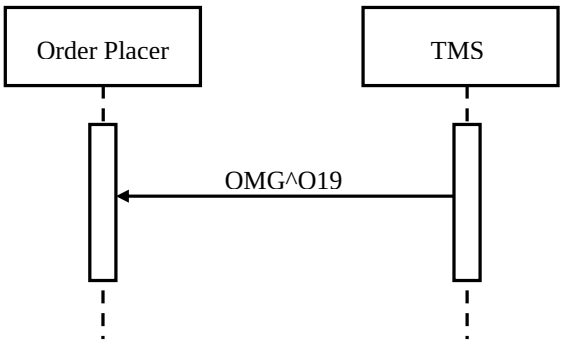
削除: 04/9/2009

削除: 03/12/2009

書式変更 ： 箇条書きと段落番号

3.4.4 Interaction Diagram

Diagram TBD



書式変更 ： 箇条書きと段落番号

3.4.4.1 Modify Radiotherapy Child Order

3.4.4.1.1 Trigger Events

1. A *Modify Radiotherapy Child Order* transaction is triggered in the case when the TMS (Therapy Management System) re-schedules or modifies characteristics of the scheduled treatment child order it previously scheduled and transmitted to the OP (Order Placer) via a *Create Radiotherapy Child Order* transaction (Transaction RO-ESI-02).

削除: ----------

3.4.4.1.2 Message Semantics

The *Modify Radiotherapy Child Order* transaction is conveyed by the HL7 OMG message formatted according to the rules described in chapter 4 of HL7 2.5.

削除: sec. 3.1.

Note: Additional qualifications to the level of specification and HL7 profiling are stated in section 2.5.

Required segments are listed below. Other segments are optional.

OMG	General Order Message	Chapter in HL7 2.5
MSH	Message Header	2
PID	Patient Identification	3
PV1	Patient Visit	3
ORC	Common Order	4

削除: 04/9/2009

削除: 03/12/2009

OBR	Order Detail	4
TQ1	Timing/Quantity	4

Each message shall be acknowledged by the HL7 ORG message sent by the receiver of OMG message to its sender. See section 2.5.3 "Acknowledgement Modes" for definition and discussion of the ORG message.

Only procedural information that is conveyed in the ORC, OBR and TQ1 segments of the message may be changed. Any updates of patient or visit information shall be performed by standard ADT messages.

Only the ORC, OBR, TQ1 segment triplet that was part of the original *Create Radiotherapy Child Order* message and that contains modified information shall be present .

The ORC and OBR elements given in tables 3.3-3 and 3.3-4 shall not be altered after the initial *Create Radiotherapy Child Order* (section 3.2), regardless of the type of control code.

Element Name	Element Number(s)
Placer Order Number	OBR-2, ORC-2
Filler Order Number	OBR-3, ORC-3
Parent	ORC-8, OBR-29

3.4.4.1.2.1 MSH Segment

MSH segment shall be constructed as defined in the section 2.5.2 "Message Control".

Field MSH-9 Message Type shall have at least two components. The first component shall have a value of "OMG"; the second component shall have value of O19. The third component is optional; however, if present, it shall have a value of OMG_O19.

3.4.4.1.2.2 PID Segment

All of the fields in PID segment are optional, except those listed in table XXX See sec. 3.1.4.1.2.2 for the list of all fields of the PID segment.

Table 3.X-1. IHE Profile – PID segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
3	250	CX	R		00106	Patient Identifier List
5	250	XPN	R		00108	Patient Name
18	250	CX	C		00121	Patient Account Number

コメント [JW29]: Since nominal dose and treatment intent are not attributes of the child order, it does not seem plausible that that it can be modified here. If it is desired to change these attributes of the PARENT order, it would be done with the cancel new parent order transactions. So I deleyed the OBX reference.

削除: The following is an optional repeating segment that is required if nominal dose and /or treatment intent are known. If this segment is present, it is mandatory to follow certain rules (see section XX).

OMG . . . [19]

削除: X.X.X

削除: OBX,

削除: ORC

削除: pair

削除: (plus optional the corresponding TQ1 segment)

コメント [SS30]: Is this approach necessary for the OP (HIS), or can we just use the segment pairs (triplets, actually with TQ1) that are being changed.

削除: All (ORC, OBR) segment pairs sent in the *Create Radiotherapy Child Order* message shall be present in the Modify Radiotherapy Child Order message, not . . . [20]

削除: x.xx-x

削除: . x.x

削除: Any other elements in the OBR or ORC segments m . . . [21]

書式変更: 箇条書きと段落番号

削除: X.X.X

削除: 3.1.4.1.2.3 (insert cross reference here)

削除: 1

コメント [JW31]: Optionality needs to be resolved.

削除: 04/9/2009

削除: 03/12/2009

Adapted from the HL7 Standard, version 2.5

3.4.4.1.2.3PV1 Segment

All of the fields in PV1 segment are optional, except those listed in table 3.XX-2 (immediately below, insert cross reference). See sec. 3.1.4.1.2.3 for the list of all fields of the PV1 segment.

削除: 1

Table 3.X-2.IHE profile - PV1 Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
2	1	IS	R	0004	00132	Patient Class
19	250	CX	C		00149	Visit Number
51	1	IS	C	0326	01226	Visit Indicator

コメント [SS32]: Optionality needs to be resolved

コメント [SS33]: Optionality needs to be resolved

コメント [SS34]: Optionality needs to be resolved

コメント [SS35]: Optionality needs to be resolved

At least one of the fields PID-18 Patient Account Number or PV1-19 Visit Number shall be valued. Additional requirements for the presence of value in these fields may be documented in regional or national appendices to the IHE Technical Framework.

The national requirements for Japan are…

Field PV1-51 Visit Indicator shall be valued with value "V" if the field PV1-19 Visit Number is present. May be omitted otherwise.

コメント [SS36]: Need to determine if this text is needed, and if so, further clarification of Japanese requirements.

書式変更 : 箇条書きと段落番号

3.4.4.1.2.4 ORC Segment

ORC segment conveys common order information.

削除: XX.XX

Table 3.XX-3, IHE Profile – ORC Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	2	ID	R	0119	00215	Order Control
2	22	EI	O		00216	Placer Order Number
3	22	EI	R		00217	Filler Order Number
5	2	ID	O	0038	00219	Order Status
7	200	TQ	B		00221	Quantity/Timing
8	200	EIP	R		00222	Parent

Field *ORC-2 Placer Order Number* shall be omitted.

削除: 04/9/2009

削除: 03/12/2009

Field *ORC-3 Filler Order Number* is used to identify what Child Order is to be modified.

Field *ORC-7 Quantity/Timing* shall have the modified information.

Field *ORC-8 Parent* shall be the Placer Order Number from the Parent Order. If the Order Placer created the parent order, the placer order number shall be in ORC-8:1. If the TMS created the parent order, then the filler order number shall be in ORC-8:2. This value shall not be changed.

削除: and

The action to be performed in the OMG message is defined by the Order Control code passed as part of the message. HL7 defines a number of Order Control codes.
The following Order Control Codes and Order Statuses are applicable for use in the *ORC-1* and *ORC-5* fields respectively.

ORC-1 value	ORC-1 description	Originator	ORC-5 value
XO	Change child order, order is still scheduled or in progress	TMS	SC
XO	Change child order, order has been completed	TMS	CM

The value of the field *ORC-5 Order Status* shall reflect status of the underlying order. If the order is changed and is still scheduled or in progress, *ORC-1 is* set to 'XO' and *ORC-5* will be valued as 'SC'.

If the order is changed and has been completed, *ORC-1* is set to 'XO' and *ORC-5* will be valued as 'CM'.

書式変更 : 箇条書きと段落番号

3.4.4.1.2.5 OBR Segment

削除: XX.XX

Table 3.XX-4 IHE Profile – OBR Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
2	22	EI	O		00216	Placer Order Number
3	22	EI	R		00217	Filler Order Number
4	250	CE	R		00238	Universal Service Identifier
13	300	ST	R2		00247	Relevant Clinical Information
27	200	TQ	B		00221	Quantity/Timing
29	200	EIP	R		00261	Parent

Field OBR-4 Universal Service Identifier shall be populated with a JJ1017 code specific to radiation oncology.

コメント [JW37]: This needs additional details.

削除: 04/9/2009

削除: 03/12/2009

Field *OBR-13 Relevant Clinical Info* shall be populated if patient record contains any medical alerts or patient instructions (e.g. empty bladder prior to treatment) that may be relevant to the order and, in particular, need to be communicated to the technologist or patient.

Per the HL7 Standard, IHE recommends that the fields in ORC and OBR segments given in the following table contain the same information.

Identical Element Mappings between ORC and OBR Segments

Element Name	ORC Segment Element	OBR Segment Element	TQ1 Segment Element
Placer Order Number	ORC-2	OBR-2	
Filler Order Number	ORC-3	OBR-3	
Quantity/Timing	ORC-7	OBR-27	TQ1-7
Parent	ORC-8	OBR-29	

3.4.4.1.2.6 TQ1 Segment

The following TQ1 segment was introduced with HL7 Version 2.5 and conveys timing and schedule information.

Table XX.XX IHE Profile – TQ1 Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
7	26	TS	R2		01633	Start date/time

This segment is optional, but if it is present then the intormation in the elements “Quantity” (TQ1-2) together with “Start date/time” (TQ1-7) shall be identical to the information in ORC and OBR segments “Quantity/Timing” (ORC-7 and OBR-27).

3.4.4.1.2.7 Expected Actions

The Order Placer shall modify corresponding scheduled treatment child order information using the ORC-3 Filler Order Number as a unique key of the child order in question. Information from PID and PV1 segments shall not be used to update patient or visit information.

コメント [JW38]: I deleted the OBX. It seems to me that sending of delivered dose will occur only on a complete child order transaction.

削除: <#>OBX Segment
The OBX segment will be used to transmit Prescribed dose for the fraction, Delivered Dose for the fraction,Total delivered dose (for the parent order), Number of performed fractions (from children of the parent order), Number of planned (total) fractions (from the parent order). See Appendix X.X.X for detail regarding the OBX contents.

There may be 1 or more OBX segments.

Table XX.XX IHE Profile – OBX Segment
SEQ . . . [22]

書式変更： 箇条書きと段落番号

コメント [JW39]: I believe that date/time is required to be present. Need to discuss with Josia.

削除: <#>

削除: Each OBX segment in a message will have a unique observation identifier.
Field *OBX-11 Result status* shall be valued as F [Final].

書式変更： 箇条書きと段落番号

コメント [JW40]: Where is “resource” passed? As currently constituted, the only information on the child order is:
Date/time
Procedure code
Clinical observations
If we want to add other data, we need to add that to the create child order transaction.
. . . [23]

削除: is expected to perform the following actions based on the value of the field *ORC-1 Order* . . . [24]

削除:

書式変更： 箇条書きと段落番号

削除: 04/9/2009

削除: 03/12/2009

3.5 RO-ESI-04: Cancel Radiotherapy Child Order

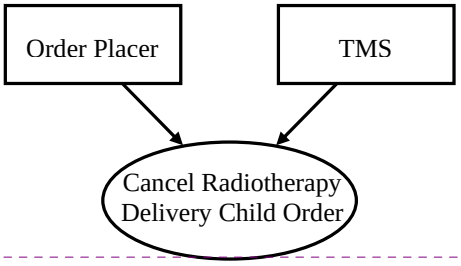
3.5.1 Scope

This transaction is used by the TMS to cancel a child order with the Order Placer.

書式変更 ： 箇条書きと段落番号

3.5.2 Use Case Roles

Diagram TBD



削除:

Actor: TMS

Role: Cancel a Radiotherapy child order.

Actor: Order Placer

Role: Cancels the referenced Radiotherapy Child Order.

書式変更 ： 箇条書きと段落番号

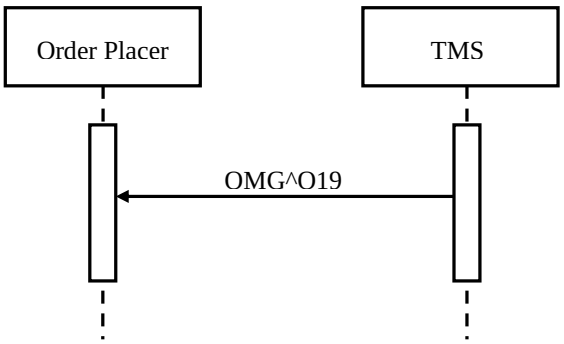
3.5.3 Referenced Standards

HL7 2.5 Chapter 4

書式変更 ： 箇条書きと段落番号

3.5.4 Interaction Diagram

Diagram TBD



削除: 04/9/2009

削除: 03/12/2009

書式変更 ： 箇条書きと段落番号

3.5.4.1 Cancel Radiotherapy Child Order

3.5.4.1.1 Trigger Events

2. A *Cancel Radiotherapy Child Order* transaction is triggered in the case when the TMS (Therapy Management System) cancels the child order it previously scheduled and transmitted to the OP (Order Placer) via a *Create Radiotherapy Child Order* transaction (Transaction RO-ESI-02).
3. This may happen in response to a Cancel Radiotherapy Parent Order (RO-ESI-07) if child orders were already created for the parent order.

書式変更 ： 箇条書きと段落番号

3.5.4.1.2 Message Semantics

HL7 2.5 Chapter 4 OMG message. Refer to HL7 Standard for general message semantics.

The *Cancel Radiotherapy Child Order* transaction is conveyed by the HL7 OMG message formatted according to the rules described in sec. 2.5.

削除: 3.1

Note: Additional qualifications to the level of specification and HL7 profiling are stated in section 2.5.

Required segments are listed below. Other segments are optional.

OMG	General Order Message	Chapter in HL7 2.5
MSH	Message Header	2
PID	Patient Identification	3
PV1	Patient Visit	3
ORC	Common Order	4
OBR	Order Detail	4

Each message shall be acknowledged by the HL7 ORG message sent by the receiver of OMG message to its sender. See 2.5.3 "Acknowledgement Modes" for definition and discussion of the ORG message.

削除: section X.X.X

Only procedural information that is conveyed in the OBR and ORC segments of the message may be canceled. Any updates of patient or visit information shall be performed by standard ADT messages.

削除: 04/9/2009

削除: 03/12/2009

3.5.4.1.2.1 MSH Segment

書式変更 ： 箇条書きと段落番号

MSH segment shall be constructed as defined in the section 2.5.2“Message Control”.

削除: X.X.X

Field MSH-9 Message Type shall have at least two components. The first component shall have a value of “OMG”; the second component shall have value of O19. The third component is optional; however, if present, it shall have a value of OMG_O19.

3.5.4.1.2.2 PID Segment

削除: MSH-17 through MSH-19

書式変更 ： 箇条書きと段落番号

All of the fields in PID segment are optional, except those listed in table XXX See sec. 3.1.4.1.2.3 (insert cross reference here) for the list of all fields of the PID segment.

Table 3.1-1. IHE Profile – PID segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
3	250	CX	R		00106	Patient Identifier List
5	250	XPN	R		00108	Patient Name
18	250	CX	C		00121	Patient Account Number

コメント [JW41]: Outstanding issue.

Adapted from the HL7 Standard, version 2.5

書式変更 ： 箇条書きと段落番号

3.5.4.1.2.3 PV1 Segment

All of the fields in PV1 segment are optional, except those listed in table 3.1-2 (immediately below, insert cross reference). See sec. XXX for the list of all fields of the PV1 segment.

IHE profile - PV1 Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
2	1	IS	R	0004	00132	Patient Class
19	250	CX	C		00149	Visit Number
51	1	IS	C	0326	01226	Visit Indicator

コメント [SS42]: Optionality needs to be resolved

コメント [SS43]: Optionality needs to be resolved

コメント [SS44]: Optionality needs to be resolved

コメント [SS45]: Optionality needs to be resolved

At least one of the fields PID-18 Patient Account Number or PV1-19 Visit Number shall be valued. Additional requirements for the presence of value in these fields may be documented in regional or national appendices to the IHE Technical Framework.

The national requirements for Japan are…

コメント [SS46]: Need to determine if this text is needed, and if so, further clarification of Japanese requirements.

Field PV1-51 Visit Indicator shall be valued with value “V” if the field PV1-19 Visit Number is present. May be omitted otherwise.

削除: 04/9/2009

削除: 03/12/2009

書式変更 ： 箇条書きと段落番号

3.5.4.1.2.4 ORC Segment

ORC segment conveys common order information.

Table XX.XX IHE Profile – ORC Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	2	ID	R	0119	00215	Order Control
2	22	EI	O		00216	Placer Order Number
3	22	EI	R		00217	Filler Order Number
8	200	EIP	R		00222	Parent

削除: 5 ... [25]

Field *ORC-1 Control Code* shall have a value of “CA”

Field *ORC-2 Placer Order Number* shall be omitted.

Field *ORC-3 Filler Order Number* is used to identify what Child Order is to be canceled.

削除:

Field *ORC-8 Parent* shall be the Placer Order Number from the Parent Order.

書式変更 ： 箇条書きと段落番号

3.5.4.1.2.5 OBR Segment

Table XX.XX IHE Profile – OBR Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
2	22	EI	O		00216	Placer Order Number
3	22	EI	R		00217	Filler Order Number

削除: 4 ... [26]

Field OBR-4 Universal Service Identifier shall be populated with a JJ1017 code specific to radiation oncology.

コメント [JW51]: This needs additional details.

Per the HL7 Standard, IHE recommends that the fields in ORC and OBR segments given in the following table contain the same information.

削除: 04/9/2009

削除: 03/12/2009

削除: Element Name ... [27]

Identical Element Mappings between ORC and OBR Segments

Element Name	ORC Segment Element	OBR Segment Element	TQ1 Segment Element
Placer Order Number	ORC-2	OBR-2	
Filler Order Number	ORC-3	OBR-3	
Quantity/Timing	ORC-7	OBR-27	TQ1-7
Parent	ORC-8	OBR-29	

書式変更 ： 箇条書きと段落番号

3.5.4.1.2.6 Expected Actions

The OP is expected to perform the following actions based on the value of the field *ORC-1 Order Control Code*:

CA – Child Order has been cancelled, the Order Provider shall inactivate corresponding child order information using ORC-3 *Filler Order Number* as a unique key of the child order in question.

書式変更 ： 箇条書きと段落番号

削除: 04/9/2009

削除: 03/12/2009

3.6 RO-ESI-05: Update Radiotherapy Child Order Status

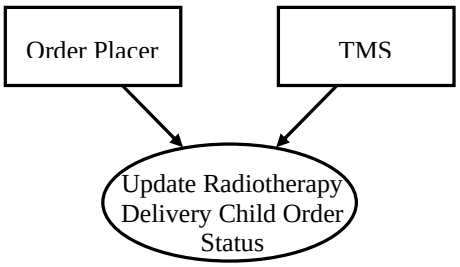
3.6.1 Scope

This transaction is used by the TMS to notify the Order Placer when a treatment delivery has been completed (including a “partial delivery” of the fraction).

書式変更 ： 箇条書きと段落番号

3.6.2 Use Case Roles

Diagram TBD



Actor: TMS

Role: Update the status of a Radiotherapy child order.

Actor: Order Placer

Role: Update the status of the referenced Radiotherapy Child Order.

書式変更 ： 箇条書きと段落番号

3.6.3 Referenced Standards

HL7 2.5 Chapter 4

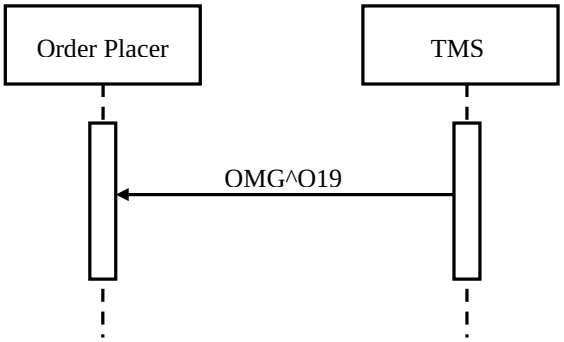
削除: 04/9/2009

削除: 03/12/2009

書式変更 ： 箇条書きと段落番号

3.6.4 Interaction Diagram

Diagram TBD



書式変更 ： 箇条書きと段落番号

3.6.4.1 Update Radiotherapy Child Order Status

3.6.4.1.1 Trigger Events

4. An *Update Radiotherapy Child Order Status* transaction is triggered in the case when the TMS (Therapy Management System) changes the status of the child order it previously scheduled and transmitted to the OP (Order Placer) via a *Create Radiotherapy Child Order* transaction (Transaction RO-ESI-02).

コメント [JW52]: Change to “completes a scheduled treatment child order”. I advocate that this be the only status change supported.

削除: 04/9/2009

削除: 03/12/2009

書式変更 ： 箇条書きと段落番号

3.6.4.1.2 Message Semantics

The *Update Radiotherapy Child Order Status* transaction is conveyed by the HL7 OMG message formatted according to the rules described in sec. 3.1.

Note: Additional qualifications to the level of specification and HL7 profiling are stated in section 2.5.

Required segments are listed below. Other segments are optional.

OMG	General Order Message	Chapter in HL7 2.5
MSH	Message Header	2
PID	Patient Identification	3
PV1	Patient Visit	3
ORC	Common Order	4
OBR	Order Detail	4

削除: {OBX} . . . [28]

Each message shall be acknowledged by the HL7 ORG message sent by the receiver of OMG message to its sender. See section 2.5.3 "Acknowledgement Modes" for definition and discussion of the ORG message.

コメント [SS53]: Find proper section

削除: X.X.X

書式変更 ： 箇条書きと段落番号

3.6.4.1.2.1 MSH Segment

MSH segment shall be constructed as defined in the section 2.5.2 "Message Control".

削除: X.X.X

Field MSH-9 Message Type shall have at least two components. The first component shall have a value of "OMG"; the second component shall have value of O19. The third component is optional; however, if present, it shall have a value of OMG_O19.

削除: MSH-17 through MSH-19

書式変更 ： 箇条書きと段落番号

3.6.4.1.2.2 PID Segment

削除: 04/9/2009

削除: 03/12/2009

All of the fields in PID segment are optional, except those listed in table XXX See sec.

3.1.4.1.2.3 (insert cross reference here) for the list of all fields of the PID segment.

Table 3.1-1. IHE Profile – PID segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
3	250	CX	R		00106	Patient Identifier List
5	250	XPN	R		00108	Patient Name
18	250	CX	C		00121	Patient Account Number

コメント [JW54]: To be reolved.

Adapted from the HL7 Standard, version 2.5

書式変更 ： 箇条書きと段落番号

3.6.4.1.2.3PV1 Segment

All of the fields in PV1 segment are optional, except those listed in table 3.1-2 (immediately below, insert cross reference). See sec. XXX for the list of all fields of the PV1 segment.

IHE profile - PV1 Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
19	250	CX	C		00149	Visit Number
51	1	IS	C	0326	01226	Visit Indicator

コメント [SS55]: Optionality needs to be resolved

コメント [SS56]: Optionality needs to be resolved

コメント [SS57]: Optionality needs to be resolved

コメント [SS58]: Optionality needs to be resolved

At least one of the fields PID-18 Patient Account Number or PV1-19 Visit Number shall be valued. Additional requirements for the presence of value in these fields may be documented in regional or national appendices to the IHE Technical Framework.

The national requirements for Japan are…

Field PV1-51 Visit Indicator shall be valued with value “V” if the field PV1-19 Visit Number is present. May be omitted otherwise.

コメント [SS59]: Need to determine if this text is needed, and if so, further clarification of Japanese requirements.

3.6.4.1.2.4 ORC Segment

書式変更 ： 箇条書きと段落番号

ORC segment conveys common order information.

Table XX.XX IHE Profile – ORC Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	2	ID	R	0119	00215	Order Control
2	22	EI	O		00216	Placer Order Number

削除: 04/9/2009

削除: 03/12/2009

3	22	EI	R		00217	Filler Order Number
5	2	ID	R	0038	00219	Order Status

削除: 7 . . . [29]

Field *ORC-1 Order Control* shall have a value of "SC"

Field *ORC-2 Placer Order Number* shall be omitted.

Field *ORC-3 Filler Order Number* is used to identify the Child Order whose status is being updated.

Field *ORC-5 Order Status* will contain the reason for the status change. The reason shall be one of the following:

Order Status codes

Value	Description
CM	Order is completed
DC	Order is discontinued

Adapted from the HL7 Standard, version 2.5

コメント [JW60]: TMS systems do not support a DC function to my knowledge. I advocate that we remove this.

CA (Cancel) is not supported with this transaction. To cancel, the TMS will use the Cancel Child Order transaction.

コメント [JW61]: The filler order number will fully identify the order. The parent is not required in my understanding.

削除: Field *ORC-8 Parent* shall be the Placer Order Number from the Parent Order

削除: shall have the value of the Placer Order Number used in the Parent Order of the Child Order whose status is being updated.

書式変更 : 箇条書きと段落番号

削除: 4 . . . [30]

3.6.4.1.2.5 OBR Segment

Table XX.XX IHE Profile – OBR Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
2	22	EI	O		00216	Placer Order Number
3	22	EI	R		00217	Filler Order Number

コメント [JW62]: This needs additional details.

書式変更 : 箇条書きと段落番号

3.6.4.1.2.6 OBX Segment

The OBX segment is not required. It shall be used to transmit (e.g.) Prescribed dose for the fraction, Delivered Dose for the fraction, Total delivered dose (for the parent order), Number of performed fractions (from children of the parent order), Number of planned (total) fractions (from the parent order). See Appendix X.X.X for detail regarding the OBX contents.

コメント [JW63]: These fields are not necessary for a cancel transaction

削除: The OBX segment will be used to

削除:

削除: 04/9/2009

削除: 03/12/2009

There may be 1 or more OBX segments.

コメント [JW64]: I think this should read that 5 OBX segments are required, one for each field.

Table XX.XX IHE Profile – OBX Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
11	1	ID	R	0085	00579	Observation Result Status

Each OBX segment in a message will have a unique observation identifier.

コメント [JW65]: We need to minimally give suggested values for these.

書式変更 ： 箇条書きと段落番号

Field *OBX-11 Result status* shall be valued as F [Final].

3.6.4.1.2.7 Expected Actions

TMS shall provide Order Placer with status updates on the child order. At least the following events shall be noted:

- Completed – when the delivery child order has completed.
- Discontinued – when a partial delivery has taken place and the intent of the TMS is to not deliver any more dose against the child order. How the TMS is to address completion of a partial delivery is outside the scope of this transaction.

コメント [JW66]: Since TMS's do not support a discontinue action, I think that partial delivery will be implied by the dose delivered parts of the complete child order message.

書式変更 ： 箇条書きと段落番号

削除: 04/9/2009

削除: 03/12/2009

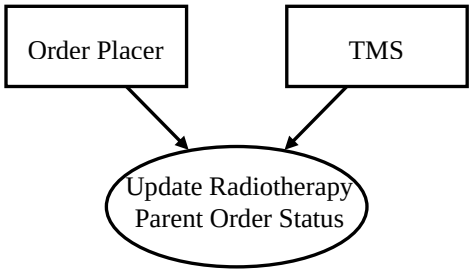
3.7 RO-ESI-06 Update Radiotherapy Parent Order Status

3.7.1 Scope

This transaction is used by the TMS to inform the Order Placer of a change in status of a parent order, namely that the order is in-progress or is completed.

3.7.2 Use Case Roles

Diagram TBD



Actor: TMS

Role: sends notifications of order status to the Order Placer.

Actor: Order Placer

Role: Receives and updates the Order Status

3.7.3 Referenced Standards

HL7 2.5 Chapter 4

削除: (including in progress, as well as complete)
This section corresponds to Transaction RO-ESI-06 of the IHE Technical Framework. Transaction RO-ESI-06 is used by the Order Placer and TMS actors.

削除: about the

コメント [SS67]: This conflicts with the idea of having a status update from CM to IP. The question of flow of control for that use case is open.

削除: s

削除: it has completed and those parent orders

削除: Update Parent Order Status message cannot be used to request an action, for example, cancellation or discontinuation of a parent order.

削除:

書式変更 : 箇条書きと段落番号

削除: updates from TMS.

書式変更 : 箇条書きと段落番号

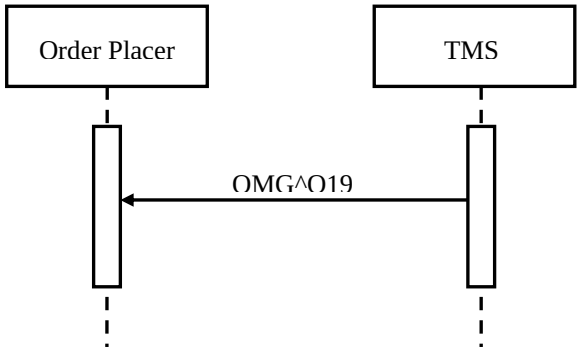
削除: 04/9/2009

削除: 03/12/2009

書式変更 ： 箇条書きと段落番号

3.7.4 Interaction Diagram

Diagram TBD



書式変更 ： 箇条書きと段落番号

3.7.4.1 Update Radiotherapy Parent Order Status

3.7.4.1.1 Trigger Events

OMG – TMS updates a parent order status (control code = SC)

書式変更 ： 箇条書きと段落番号

3.7.4.1.1.1 Status “in progress”

The first scheduled treatment event (child order) has begun (parent order status becomes in progress).

書式変更 ： 箇条書きと段落番号

3.7.4.1.1.2 Status “Complete”

The treatment is completed in the TMS (what constitutes completion is defined by the TMS).

コメント [JW68]: I added this after seeing the case expressed in the ORC section below.

3.7.4.1.1.3 Change status from “Complete” to “In progress”

書式変更 ： 箇条書きと段落番号

The treatment was previously completed by the TMS but it has been decided to continue treatment against the parent order. For example, the original order was carried out but subsequent evaluation led to a decision to add 3 more radiation treatments.

書式変更 ： 箇条書きと段落番号

3.7.4.1.2 Message Semantics

HL7 2.5 Chapter 4 OMG message. Refer to HL7 Standard for general message semantics.

削除: 04/9/2009

削除: 03/12/2009

Note: Additional qualifications to the level of specification and HL7 profiling are stated in section 2.5.

Required segments are listed below. Other segments are optional.

OMG	General Order Message	Chapter in HL7 2.5
MSH	Message Header	2
PID	Patient Identification	3
PV1	Patient Visit	3
ORC	Common Order	4
OBR	Order Detail	4

書式変更 ： 箇条書きと段落番号

3.7.4.1.2.1 MSH Segment

MSH segment shall be constructed as defined in the section X.X.X “Message Control”.

Field MSH-9 Message Type shall have at least two components. The first component shall have a value of “OMG”; the second component shall have value of O19. The third component is optional; however, if present, it shall have a value of OMG_O19.

3.7.4.1.2.2 PID Segment

コメント [SS69]: These need to be specified as per IHE-J requirements (similar to IHE-J RAD) for Country Code and Character Set.

削除: MSH-17 through MSH-19

書式変更 ： 箇条書きと段落番号

All of the fields in PID segment are optional, except those listed in table XXX See sec. 3.1.4.1.2.3 (insert cross reference here) for the list of all fields of the PID segment.

Table 3.x-x. IHE Profile – PID segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
3	250	CX	R		00106	Patient Identifier List
5	250	XPN	R		00108	Patient Name
18	250	CX	C		00121	Patient Account Number

コメント [JW70]: To be resolved by IHE-RO-J.

Adapted from the HL7 Standard, version 2.5

書式変更 ： 箇条書きと段落番号

3.7.4.1.2.3 PV1 Segment

All of the fields in PV1 segment are optional, except those listed in table 3.1-2 (immediately below, insert cross reference). See sec. XXX for the list of all fields of the PV1 segment.

削除: 04/9/2009

削除: 03/12/2009

IHE profile - PV1 Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
2	1	IS	R	0004	00132	Patient Class
19	250	CX	C		00149	Visit Number
51	1	IS	C	0326	01226	Visit Indicator

コメント [SS71]: Optionality needs to be resolved

コメント [SS72]: Optionality needs to be resolved

コメント [SS73]: Optionality needs to be resolved

コメント [SS74]: Optionality needs to be resolved

コメント [SS75]: Need to determine if this text is needed, and if so, further clarification of Japanese requirements.

書式変更 : 箇条書きと段落番号

At least one of the fields PID-18 Patient Account Number or PV1-19 Visit Number shall be valued. Additional requirements for the presence of value in these fields may be documented in regional or national appendices to the IHE Technical Framework.

The national requirements for Japan are…

Field PV1-51 Visit Indicator shall be valued with value “V” if the field PV1-19 Visit Number is present. May be omitted otherwise.

3.7.4.1.2.4 ORC Segment

ORC segment conveys common order information.

Table XX.XX IHE Profile – ORC Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	2	ID	R	0119	00215	Order Control
2	22	EI	C		00216	Placer Order Number
3	22	EI	C		00217	Filler Order Number
5	2	ID	R	0038	00219	Order Status
16	250	CE	C		00230	Order Control Code Reason

削除: R

削除: O

削除: 4 . . . [31]

削除: 6 . . . [32]

削除: 8 . . . [33]

削除: 9 . . . [34]

Field *ORC-1 Order Control* must be valued as “SC”.

If the Order Placer sent the original order, field *ORC-2 Placer Order number* is required and field *ORC-3 Filler Order number* shall not be present. If the TMS placed the parent order, the Filler Order number shall be used and field *ORC-2 Placer Order number* shall not be present (see RO-ESI-08).

削除: F

削除: . F

削除:

Field *ORC-5 Order Status* will contain the reason for the status change. The reason shall be one of the following:

Order Status codes

Value	Description

削除: 04/9/2009

削除: 03/12/2009

CM	Order is completed
IP	Order is in progress

Adapted from the HL7 Standard, version 2.5

Neither CA (Cancel), nor DC (Discontinue) is supported in this transaction. To cancel or discontinue the OP will use the Cancel Parent Order transaction.

Field *ORC-16 Order Control Code Reason* must contain a value when the Order Status changes from CM to IP (the Parent Order was previously considered complete, but for some reason the patient needs to continue treatment under the Parent Order).

削除: Field *ORC-8 Parent* shall not be present

書式変更 ： 箇条書きと段落番号

3.7.4.1.2.5 OBR Segment

Table XX.XX IHE Profile – OBR Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
2	22	EI	C		00216	Placer Order Number
3	22	EI	C		00217	Filler Order Number
27	200	TQ	B		00221	Quantity/Timing

削除: 1 . . . [35]

削除: R

削除: O

削除: 4 . . . [36]

削除: 28 . . . [37]

削除: 29 . . . [38]

削除: 30 . . . [39]

Per the HL7 Standard, IHE recommends that the fields in ORC and OBR segments given in the following table contain the same information.

削除: Field OBR-4 Universal Service Identifier shall be populated with a JJ1017 code specific to radiation oncology.

Identical Element Mappings between ORC and OBR Segments

Element Name	ORC Segment Element	OBR Segment Element	TQ1 Segment Element
Placer Order Number	ORC-2	OBR-2	
Filler Order Number	ORC-3	OBR-3	
Quantity/Timing	ORC-7	OBR-27	TQ1-7
Parent	ORC-8	OBR-29	

削除: **Identical Element Mappings between ORC and OBR Segments Element Name** . . . [40]

書式変更 ： 箇条書きと段落番号

3.7.4.1.2.6 Expected Actions

TMS shall provide Order Placer with status updates on the order. At least the following events shall be noted:

- In Progress – when the first delivery child order status is updated to “In-progress” (Order Status code of “IP”).

削除: 04/9/2009

削除: 03/12/2009

- In Progress - if a previously completed Parent Order needs to be returned to “In-progress” status, e.g. patient needs more treatment under the Parent Order (Order Status code of “IP”).
- Completed – when all delivery child orders are completed (Order Status code of “CM”).

削除: (

削除:)

削除: TMS shall send one Order Status Update message with the Order Status code of “CM”.

TMS shall use the Order Status Update message with the Order Status code of “IP ”, to facilitate synchronization of order handling with the Order Placer, for example, to prevent cancellation of an parent order in progress.

書式変更 ： 箇条書きと段落番号

削除: 04/9/2009

削除: 03/12/2009

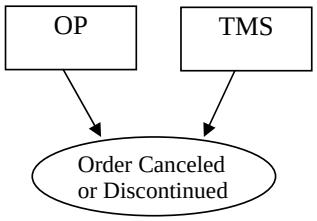
3.8 RO-ESI-07: Cancel Radiotherapy Parent Order

3.8.1 Scope

This transaction is used by the Order Placer to cancel an existing parent order with the TMS.

書式変更 ： 箇条書きと段落番号

3.8.2 Use Case Roles



Actor: Order Placer

Role: Cancels an Existing Radiotherapy parent order

Actor: TMS

Role: Receives and processes cancelation of Radiotherapy parent order.

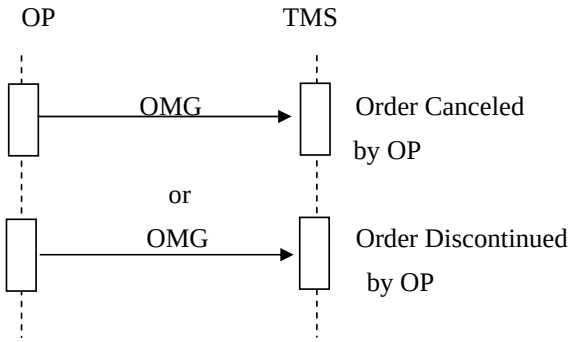
書式変更 ： 箇条書きと段落番号

3.8.3 Referenced Standards

HL7 2.5 Chapter 4

書式変更 ： 箇条書きと段落番号

3.8.4 Interaction Diagram



削除: 04/9/2009

削除: 03/12/2009

書式変更 ： 箇条書きと段落番号

3.8.4.1 Cancel Radiotherapy Parent Order

3.8.4.1.1 Trigger Events

OMG – Order Placer cancels a parent order (control code = CA).

OMG – Order Placer discontinues (attempts to stop) an ongoing parent order (control code = DC).

書式変更 ： 箇条書きと段落番号

3.8.4.1.2 Message Semantics

HL7 2.5 Chapter 4 OMG message. Refer to HL7 Standard for general message semantics.

Note: Additional qualifications to the level of specification and HL7 profiling are stated in section 2.5.

Required segments are listed below. Other segments are optional.

OMG	General Order Message	Chapter in HL7 2.5
MSH	Message Header	2
PID	Patient Identification	3
PV1	Patient Visit	3
ORC	Common Order	4
OBR	Order Detail	4

書式変更 ： 箇条書きと段落番号

3.8.4.1.2.1 MSH Segment

MSH segment shall be constructed as defined in the section X.X.X “Message Control”.

Field MSH-9 Message Type shall have at least two components. The first component shall have a value of “OMG”; the second component shall have value of O19. The third component is optional; however, if present, it shall have a value of OMG_O19.

削除: MSH-17 through MSH-19

書式変更 ： 箇条書きと段落番号

3.8.4.1.2.2 PID Segment

All of the fields in PID segment are optional, except those listed in table XXX See sec. 3.1.4.1.2.3 (insert cross reference here) for the list of all fields of the PID segment.

Table 3.1-1. IHE Profile – PID segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
3	250	CX	R		00106	Patient Identifier List
5	250	XPN	R		00108	Patient Name
18	250	CX	C		00121	Patient Account Number

削除: 04/9/2009

削除: 03/12/2009

Adapted from the HL7 Standard, version 2.5

書式変更 ： 箇条書きと段落番号

3.8.4.1.2.3PV1 Segment

All of the fields in PV1 segment are optional, except those listed in table 3.1-2 (immediately below, insert cross reference). See sec. XXX for the list of all fields of the PV1 segment.

IHE profile - PV1 Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
2	1	IS	R	0004	00132	Patient Class
19	250	CX	C		00149	Visit Number
51	1	IS	C	0326	01226	Visit Indicator

コメント [SS76]: Optionality needs to be resolved

コメント [SS77]: Optionality needs to be resolved

コメント [SS78]: Optionality needs to be resolved

コメント [SS79]: Optionality needs to be resolved

At least one of the fields PID-18 Patient Account Number or PV1-19 Visit Number shall be valued. Additional requirements for the presence of value in these fields may be documented in regional or national appendices to the IHE Technical Framework.

The national requirements for Japan are…

Field PV1-51 Visit Indicator shall be valued with value “V” if the field PV1-19 Visit Number is present. May be omitted otherwise.

コメント [SS80]: Need to determine if this text is needed, and if so, further clarification of Japanese requirements.

書式変更 ： 箇条書きと段落番号

3.8.4.1.2.4 ORC Segment

ORC segment conveys common order information.

削除: (To be described)

Table XX.XX IHE Profile – ORC Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	2	ID	R	0119	00215	Order Control
2	22	EI	C		00216	Placer Order Number
3	22	EI	C		00217	Filler Order Number
15	26	TS	C		00229	Order Effective Date/Time

削除: R

削除: O

削除: 5 . . . [41]

削除: 9 . . . [42]

削除: 8 . . . [43]

コメント [SS82]: If the Order Status is DC, this would determine whether a fraction is delivered before the effective date/time. Optionality TBD by analysis of IHE-J RO

削除: 16 . . . [44]

削除: 04/9/2009

削除: 03/12/2009

Field *ORC-1 Order Control* must be valued as “CA” or “DC”

The action to be performed in the OMG message is defined by the Order Control code passed as part of the message. HL7 defines a number of Order Control codes.

The order control codes below shall be supported.

Supported Order Control Codes

Value	Description
CA	Cancel order request
DC	Discontinue Order request

If the Order Placer sent the original order, field *ORC-2 Placer Order number* is used to identify the parent order and the filler order number shall not be present. If the TMS placed the parent order, the Filler Order number shall be used. If the Order Placer sent the original order field *ORC-3 Filler Order number* shall not be present.

Field *ORC--8 Parent* shall not be present.

Field *ORC-15 Order effective Date/Time is required and* shall determine if a child order may still be performed when this parent order is discontinued.

削除:

削除: F

削除:

削除: F

削除: Field *ORC-5 Order Status* shall not be present.

コメント [JW84]: I don't know about this. If the treatments is scheduled for 10am but hasn't started and at 1pm the order is cancelled, I would argue that the order ought be cancelled. It is not being cancelled at a particular start date/time; it is being cancelled as of now.

3.8.4.1.2.5 OBR Segment

Table XX.XX IHE Profile – OBR Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	4	SI	O		00237	Set ID – OBR
2	22	EI	C		00216	Placer Order Number
3	22	EI	C		00217	Filler Order Number
4	250	CE	R		00238	Universal Service Identifier

書式変更 : 箇条書きと段落番号

削除: R

削除: O

Field OBR-4 Universal Service Identifier shall be populated with a JJ1017 code specific to radiation oncology.

コメント [JW85]: This needs additional details.

Per the HL7 Standard, IHE recommends that the fields in ORC and OBR segments given in the following table contain the same information.

Identical Element Mappings between ORC and OBR Segments

Element Name	ORC Segment Element	OBR Segment Element
Placer Order Number	ORC-2	OBR-2
Filler Order Number	ORC-3	OBR-3

3.8.4.1.2.6 Expected Actions

After receiving the OMG message with the order status code CA, the TMS shall update the parent order and the unconsummated related child order(s) and shall not attempt to schedule or otherwise to fulfill them. If the TMS has already scheduled the treatment deliveries (child

書式変更 : 箇条書きと段落番号

削除: discard the record of the parent order

削除: and

削除: it

削除: 04/9/2009

削除: 03/12/2009

orders) corresponding to this parent order, it has to perform Transaction RO-ESI-04 Cancel Radiotherapy Delivery Child Order (see sec. X.XX) to notify the OP of child order cancellation.

Order Placer shall not cancel parent order that has already been started, i.e., the one for which TMS transmitted the “In-Progress” status (see sec. X.X.X). However, if the TMS receives the cancellation message after it has sent the Child Status Update message (for example, IN-PROGRESS), TMS shall not accept order cancellation and return respond acknowledgment with an error.

If the Parent Order status is in “IN PROGRESS”, Order Placer will utilize the OMG message with the order status code of DC. When TMS receives a message to discontinue the order, TMS shall discard the remaining related child order(s) using RO-ESI-04 Cancel Radiotherapy Delivery Child Order.

書式変更 ： 箇条書きと段落番号

削除: 04/9/2009

削除: 03/12/2009

3.9 RO-ESI-08: Unsolicited Create Radiotherapy Parent Order

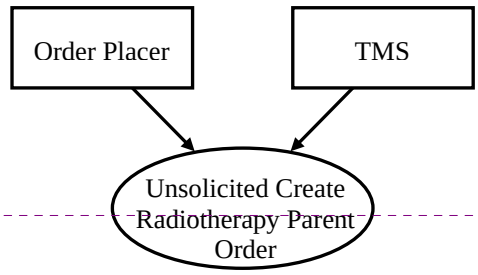
3.9.1 Scope

This transaction is used by the TMS to place a new order with the Order Placer.

書式変更 ： 箇条書きと段落番号

3.9.2 Use Case Roles

Diagram TBD



削除:

Actor: TMS

Role: Places Radiotherapy parent orders

Actor: Order Placer

Role: Receives and processes Radiotherapy parent orders.

書式変更 ： 箇条書きと段落番号

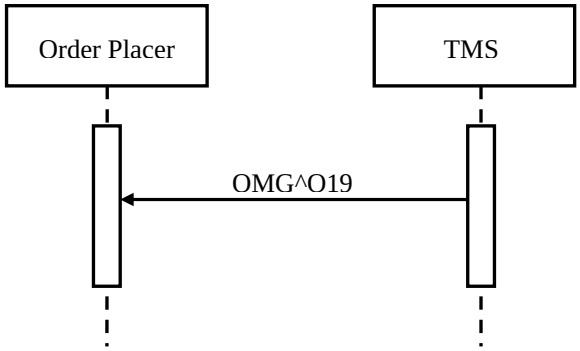
3.9.3 Referenced Standards

HL7 2.5 Chapter 4

書式変更 ： 箇条書きと段落番号

3.9.4 Interaction Diagram

Diagram TBD



削除: 04/9/2009

削除: 03/12/2009

書式変更 ： 箇条書きと段落番号

3.9.4.1 Create Radiotherapy Parent Order

3.9.4.1.1 Trigger Events

OMG – The TMS places a new order for the Order Placer

書式変更 ： 箇条書きと段落番号

3.9.4.1.2 Message Semantics

HL7 2.5 Chapter 4 OMG message. Refer to HL7 Standard for general message semantics.

Note: Additional qualifications to the level of specification and HL7 profiling are stated in section 2.5.

Required segments are listed below. Other segments are optional.

OMG	General Order Message	Chapter in HL7 2.5
MSH	Message Header	2
PID	Patient Identification	3
PV1	Patient Visit	3
ORC	Common Order	4
OBR	Order Detail	4

The following is an optional repeating segment that is required if nominal dose and /or treatment intent are known. If this segment is present, it is mandatory to follow certain rules (see section XX).

OMG	General Order Message	Chapter in HL7 2.5
OBX	Observation/Result	7

削除: 04/9/2009

削除: 03/12/2009

Each message shall be acknowledged by the HL7 ORG message sent by the receiver of OMG message to its sender. See section X.X.X “Acknowledgement Modes” for definition and discussion of the ORG message.

書式変更 ： 箇条書きと段落番号

3.9.4.1.2.1MSH Segment

MSH segment shall be constructed as defined in the section X.X.X “Message Control”.

Field MSH-9 Message Type shall have at least two components. The first component shall have a value of “OMG”; the second component shall have value of O19. The third component is optional; however, if present, it shall have a value of OMG_O19.

MSH-17 through MSH-19 {{[[ToDo: This should be further described by IHE-J RO, defining the correct values to reference Japanese language, character set, etc.]]}}

書式変更 ： 箇条書きと段落番号

3.9.4.1.2.2PID Segment

All of the fields in PID segment are optional, except those listed in table XXX See sec. 3.1.4.1.2.3 (insert cross reference here) for the list of all fields of the PID segment.

Table 3.1-1. IHE Profile – PID segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
3	250	CX	R		00106	Patient Identifier List
5	250	XPN	R		00108	Patient Name
18	250	CX	C		00121	Patient Account Number

Adapted from the HL7 Standard, version 2.5

書式変更 ： 箇条書きと段落番号

3.9.4.1.2.3PV1 Segment

All of the fields in PV1 segment are optional, except those listed in table 3.1-2 (immediately below, insert cross reference). See sec. XXX for the list of all fields of the PV1 segment.

IHE profile - PV1 Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name

削除: 04/9/2009

削除: 03/12/2009

2	1	IS	R	0004	00132	Patient Class
8	250	XCN	R2	0010	00138	Referring Doctor
19	250	CX	C		00149	Visit Number
51	1	IS	C	0326	01226	Visit Indicator

At least one of the fields PID-18 Patient Account Number or PV1-19 Visit Number shall be valued. Additional requirements for the presence of value in these fields may be documented in regional or national appendices to the IHE Technical Framework.

The national requirements for Japan are…

Field PV1-51 Visit Indicator shall be valued with value “V” if the field PV1-19 Visit Number is present. May be omitted otherwise.

書式変更 ： 箇条書きと段落番号

3.9.4.1.2.4 ORC Segment

ORC segment conveys common order information.

Table XX.XX IHE Profile – ORC Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	2	ID	R	0119	00215	Order Control
2	22	EI	O		00216	Placer Order Number
3	22	EI	R		00217	Filler Order Number
5	2	ID	O	0038	00219	Order Status
8	200	EIP	O		00222	Parent

削除: R

削除: O

削除: 9 . . . [45]

Field *ORC-1 Order Control* must be valued as “NW”

Field *ORC-2 Placer Order Number* *shall not be present*.

Field *ORC-3 Filler Order Number* *is used to identify this parent order*.

Field *ORC-5 Order Status* shall not be present.

Field *ORC-8 Parent* shall not be present.

削除: is used to identify this parent order.

削除: shall not be present.

The action to be performed in the OMG message is defined by the Order Control code passed as part of the message. HL7 defines a number of Order Control codes.

削除: 04/9/2009

削除: 03/12/2009

The order control codes below shall be supported.

Supported Order Control Codes

Value	Description
NW	New order

書式変更 ： 箇条書きと段落番号

3.9.4.1.2.5 OBR Segment

Table XX.XX IHE Profile – OBR Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	4	SI	O		00237	Set ID – OBR
2	22	EI	R		00216	Placer Order Number
3	22	EI	O		00217	Filler Order Number
4	250	CE	R		00238	Universal Service Identifier

Field OBR-4 Universal Service Identifier shall be populated with a JJ1017 code specific to radiation oncology.

Per the HL7 Standard, IHE recommends that the fields in ORC and OBR segments given in the following table contain the same information (if present).

Identical Element Mappings between ORC and OBR Segments

Element Name	ORC Segment Element	OBR Segment Element
Placer Order Number	ORC-2	OBR-2
Filler Order Number	ORC-3	OBR-3

削除: Quantity/Timing ... [46]

削除: 04/9/2009

削除: 03/12/2009

書式変更 ： 箇条書きと段落番号

3.9.4.1.2.6 OBX Segment

The OBX segment will be used to transmit nominal dose and treatment intent if available. There may be 0,1, or 2 OBX segments. See Appendix X.X.X for detail regarding the OBX contents.

Table XX.XX IHE Profile – OBX Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
11	1	ID	R	0085	00579	Observation Result Status

Nominal dose will always be communicated with a unit of measurement of Gray and a data type of NM. Treatment intent will be one of the three following values: PALLIATIVE, CURATIVE, or PROPHYLACTIC and a data type of ST.

Each OBX segment in a message will have a unique observation identifier.

Field *OBX-11 Result status* shall be valued as F [Final].

書式変更 ： 箇条書きと段落番号

3.9.4.1.2.7 ERR Segment

ERR segment in the ORG (Error) message shall be constructed as defined in the section x.x.x “Acknowledgement Modes”.

コメント [SS86]: Insert proper section

Field ERR-1 Error code and location in ORG (Error) shall have the Error code value of 204 (Unknown Key Identifier).

書式変更 ： 箇条書きと段落番号

3.9.4.1.2.8 Expected Actions

The Order Placer shall accept the order information for fulfillment. If error in data prevents it from fulfilling the order, it shall notify the TMS by returning proper information in the ORG message.

If the Order Placer accepts and registers order information transmitted from the TMS in the OMG message, it shall assign its unique number to it and convey that number to the TMS in the ORG (Success) message. In turn, the TMS shall register received Order Placer number and include it into the subsequent communication of order status with Order Placer.

書式変更 ： 箇条書きと段落番号

削除: 04/9/2009

削除: 03/12/2009

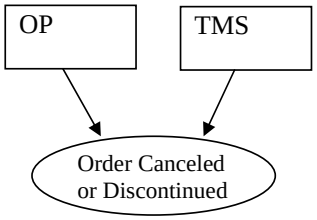
3.10 RO-ESI-09: Unsolicited Cancel Radiotherapy Parent Order

3.10.1 Scope

This transaction is used by the TMS to cancel an existing parent order with the OP.

書式変更 ： 箇条書きと段落番号

3.10.2 Use Case Roles



Actor: TMS

Role: Cancels an Existing Radiotherapy parent order

Actor: Order Placer

Role: Receives and processes cancelation of Radiotherapy parent order

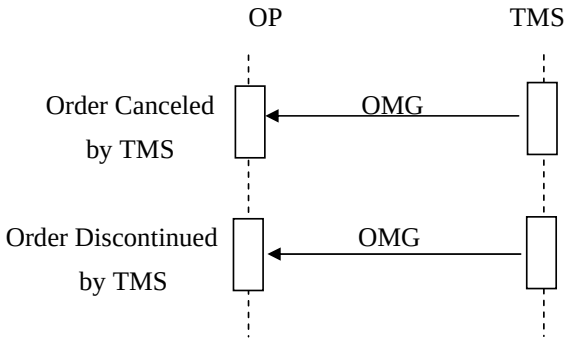
書式変更 ： 箇条書きと段落番号

3.10.3 Referenced Standards

HL7 2.5 Chapter 4

書式変更 ： 箇条書きと段落番号

3.10.4 Interaction Diagram



削除: 04/9/2009

削除: 03/12/2009

書式変更 ： 箇条書きと段落番号

3.10.4.1 Unsolicited Cancel Radiotherapy Parent Order

3.10.4.1.1 Trigger Events

OMG – TMS cancels a parent order (control code = CA).

OMG – TMS discontinues (attempts to stop) an ongoing parent order (control code = DC).

書式変更 ： 箇条書きと段落番号

3.10.4.1.2 Message Semantics

HL7 2.5 Chapter 4 OMG message. Refer to HL7 Standard for general message semantics.

Note: Additional qualifications to the level of specification and HL7 profiling are stated in section 2.5.

Required segments are listed below. Other segments are optional.

OMG	General Order Message	Chapter in HL7 2.5
MSH	Message Header	2
PID	Patient Identification	3
PV1	Patient Visit	3
ORC	Common Order	4
OBR	Order Detail	4

書式変更 ： 箇条書きと段落番号

3.10.4.1.2.1 MSH Segment

MSH segment shall be constructed as defined in the section X.X.X “Message Control”.

Field MSH-9 Message Type shall have at least two components. The first component shall have a value of “OMG”; the second component shall have value of O19. The third component is optional; however, if present, it shall have a value of OMG_O19.

MSH-17 through MSH-19

コメント [SS87]: These need to be specified as per IHE-J requirements (similar to IHE-J RAD) for Country Code and Character Set.

書式変更 ： 箇条書きと段落番号

3.10.4.1.2.2 PID Segment

All of the fields in PID segment are optional, except those listed in table XXX See sec. 3.1.4.1.2.3 (insert cross reference here) for the list of all fields of the PID segment.

Table 3.1-1. IHE Profile – PID segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
3	250	CX	R		00106	Patient Identifier List
5	250	XPN	R		00108	Patient Name

削除: 04/9/2009

削除: 03/12/2009

18	250	CX	C		00121	Patient Account Number

Adapted from the HL7 Standard, version 2.5

書式変更 ： 箇条書きと段落番号

3.10.4.1.2.3 PV1 Segment

All of the fields in PV1 segment are optional, except those listed in table 3.1-2 (immediately below, insert cross reference). See sec. XXX for the list of all fields of the PV1 segment.

IHE profile - PV1 Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
2	1	IS	R	0004	00132	Patient Class
19	250	CX	C		00149	Visit Number
51	1	IS	C	0326	01226	Visit Indicator

コメント [SS88]: Optionality needs to be resolved

コメント [SS89]: Optionality needs to be resolved

コメント [SS90]: Optionality needs to be resolved

コメント [SS91]: Optionality needs to be resolved

At least one of the fields PID-18 Patient Account Number or PV1-19 Visit Number shall be valued. Additional requirements for the presence of value in these fields may be documented in regional or national appendices to the IHE Technical Framework.

The national requirements for Japan are…

Field PV1-51 Visit Indicator shall be valued with value “V” if the field PV1-19 Visit Number is present. May be omitted otherwise.

コメント [SS92]: Need to determine if this text is needed, and if so, further clarification of Japanese requirements.

書式変更 ： 箇条書きと段落番号

削除: 04/9/2009

削除: 03/12/2009

3.10.4.1.2.4 ORC Segment

ORC segment conveys common order information.

Table XX.XX IHE Profile – ORC Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	2	ID	R	0119	00215	Order Control
2	22	EI	C		00216	Placer Order Number
3	22	EI	C		00217	Filler Order Number
5	2	ID	O	0038	00219	Order Status
8	200	EIP	O		00222	Parent
15	26	TS	C		00229	Order Effective Date/Time

削除: R
削除: O
削除: Place
削除: 9
削除: 26
削除: TS
削除: R
削除: 00223
削除: Date/Time of Transaction
削除: 16
. . . [47]

Field *ORC-1 Order Control* must be valued as “CA” or “DC”

If the Order Placer sent the original order, field *ORC-2 Placer Order number* is used to identify the parent order and the filler order number shall not be present. If the TMS placed the parent order, the Filler Order number shall be used. If the Order Placer sent the original order field *ORC-3 Filler Order number* shall not be present.

Field *ORC-5 Order Status* shall not be present.

削除: Field *ORC-2 Placer Order Number* is used to identify the parent order.
Field *ORC-3 Filler Order number* shall not be present.

Field *ORC--8 Parent* shall not be present.

Field *ORC-15 Order effective Date/Time* shall determine if a child order may still be performed when this parent order is discontinued.

The action to be performed in the OMG message is defined by the Order Control code passed as part of the message. HL7 defines a number of Order Control codes.

The order control codes below shall be supported.

Supported Order Control Codes

Value	Description
CA	Cancel order request
DC	Discontinue Order request

書式変更 ： 箇条書きと段落番号
削除: 04/9/2009
削除: 03/12/2009

3.10.4.1.2.5 OBR Segment

Table XX.XX IHE Profile – OBR Segment

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
1	4	SI	O		00237	Set ID – OBR
2	22	EI	R		00216	Placer Order Number
3	22	EI	O		00217	Filler Order Number
4	250	CE	R		00238	Universal Service Identifier

Field OBR-4 Universal Service Identifier shall be populated with a JJ1017 code specific to radiation oncology.

Per the HL7 Standard, IHE recommends that the fields in ORC and OBR segments given in the following table contain the same information.

Identical Element Mappings between ORC and OBR Segments

Element Name	ORC Segment Element	OBR Segment Element
Placer Order Number	ORC-2	OBR-2
Filler Order Number	ORC-3	OBR-3

書式変更 ： 箇条書きと段落番号

3.10.4.1.2.6 Expected Actions

In the Enterprise Schedule Integration profile, an OP generally issues the parent order and generally issues any cancellation of that order. This Unsolicited Cancel Radiotherapy Parent Order reverses the issuer and receiver of the Cancel Radiotherapy Parent Order message.

After receiving the OMG message with the order status code “CA”, the Order Placer shall discard the record of the parent order. If the TMS has already scheduled the treatment deliveries (child orders) corresponding to this parent order, it has to perform

削除: 04/9/2009

削除: 03/12/2009

Transaction RO-ESI-04 Cancel Radiotherapy Delivery Child Order (see sec. X.XX) to notify the OP of child order cancellation.

TMS shall not cancel parent order that has already been started, i.e., the one for which TMS transmitted the “In-Progress” status (see sec. X.X.X), or for which one or more “Completed” status transactions have been performed.

If OP has “IN-PROGRESS” status of the parent order, OP shall not accept parent order cancellation and perform acknowledgment with an error.

If the Parent Order status is in “IN PROGRESS”, TMS will utilize the OMG message with the control code of DC.

When the Order Placer receives a message to discontinue the order, the Order Placer should expect to receive RO-ESI-04 Cancel Radiotherapy Delivery Child Order transactions to discard the remaining related child order(s). The TMS is responsible for issuing the Cancel Radiotherapy Delivery Child Order messages.

削除: 04/9/2009

削除: 03/12/2009

4 Open Issues

1. Should we follow IHE-RAD for putting the national Japanese extension (e.g. message header MSH-16-18) into a separate volume? [Note: the current draft includes Japanese extensions within the document.]
2. Should first example of HL7 segments include all fields or just profile-specific fields? [Draft includes all].
3. Patient registration. Current draft states ADT functions. Alternative: To state: "As a pre-requisite the patient administration must have taken place beforehand. Please see IHE-RAD rev8 for details with the exception that HL7 version 2.5 is required."
4. Should the profile mandate TQ1 when start date/time is required? [Current draft requires it].
5. PID-18 Account number PV1-19 Visit Number and PV1-51 Visit Indicator: Need to decide whether to include as conditional or required.
6. Filler and Pacer Order Number: Should we alternatively use filler or placer order number depending on whether the placer or filler places the order? [This is what the draft uses.].
7. Other items may need to be represented the OBX for parent order: e.g. site, technique, modality, fraction, others? Additional ones may be needed on the child order? Shall we specify each one? [The current draft specifies treatment intent and nominal dose and nothing else.]
8. Should we be using hard-coded code representation for these OBX field codes? [Current draft has nominal dose and treatment intent hard-coded].
9. Should DICOM attributes when known be mentioned in this document? Should they be required or recommended?
10. We have examples for order parent OBX. Shall we provide segment examples within scope of the profile or separately?
11. JJ1017 needs to completed and reviewed and explained.
12. IHE-RAD r8 v2 Table B-1 lists HL7-DICOM mapping. It would appear that mapping of OBR-34 Technician to DICOM Scheduled Performing Physician Name, might apply to the new child order.
13. Should child order status support a separate discontinue order transaction? None of the known TMS systems support this action. [Draft has DC included].
14. Cancel parent order, order effective date/time. What are the conditions under which this would happen? Does the HIS have a special date/time when an order is to be considered cancelled? Proposal: to remove (Jeff). Draft still has].

削除: 04/9/2009

削除: 03/12/2009

15. Need to insert use case role and interaction diagrams, complete all references.

書式変更 ： 箇条書きと段落番号

削除: 04/9/2009

削除: 03/12/2009

ページ 26: [1] 削除　　Jeff West　　2009/03/13 18:08:00

Element Name	ORC Segment Element	OBR Segment Element
Placer Order Number	ORC-2	OBR-2
Filler Order Number	ORC-3	OBR-3
Quantity/Timing	ORC-7	OBR-27
Parent	ORC-8	OBR-29

ページ 31: [2] 削除　　Jeff West　　2009/03/05 9:51:00

ORG Success

ORG (Success)	General Order Message	Chapter in HL7 2.5
MSH	Message Header	2
MSA	Message Acknowledgement	2

ORG (Error)	General Order Message	Chapter in HL7 2.5
MSH	Message Header	2
MSA	Message Acknowledgement	2
ERR	Error	2

ページ 31: [3] 削除　　Josia Kammler　　2009/03/02 9:19:00

Alternatively, the following could be required by the HIS

SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
3	250	CX	R		00106	Patient Identifier List
5	250	XPN	R		00108	Patient Name
7	26	TS	R2		00110	Date/Time of Birth
8	1	IS	R	0001	00111	Administrative Sex
11	250	XAD	R2		00114	Patient Address
18	250	CX	C		00121	Patient Account Number[JW1]

ページ 31: [4] コメント [JW21]　　Jeff West

IHE profiles generally specify the origin of this patient identifier. This is done in the patient demographic transactions and referred to here. It is generally the MPI.

ページ 32: [5] 削除			Jeff West		2009/03/05 10:38:00	
2	22	EI	O		00216	Placer Order Number

ページ 32: [6] 削除			Josia Kammler		2009/03/02 9:40:00	
4	22	EI	C		00218	Placer Group Number

ページ 32: [7] 削除			Josia Kammler		2009/03/02 8:58:00	
6	1	ID	O	0121	00220	Response Flag

ページ 32: [8] 削除			Josia Kammler		2009/03/02 8:58:00	
9	26	TS	R		00223	Date/Time of Transaction
10	250	XCN	O		00224	Entered By
11	250	XCN	O		00225	Verified By
12	250	XCN	O		00226	Ordering Provider
13	80	PL	O		00227	Enterers Location
14	250	XTN	O		00228	Callback Phone Number
15	26	TS	O		00229	Order Effective Date/Time
16	250	CE	O		00230	Order Control Code Reason

ページ 33: [9] 削除			Josia Kammler		2009/03/02 8:57:00	
1	4	SI	O		00237	Set ID – OBR

ページ 33: [10] 削除			Jeff West		2009/03/05 17:43:00	
5	2	ID	B		00239	Priority – OBR
6	26	TS	B		00240	Requested Date/Time
7	26	TS	O		00241	Observation Date/Time #
8	26	TS	O		00242	Observation End Date/Time #
9	20	CQ	O		00243	Collection Volume *
10	250	XCN	O		00244	Collector Identifier *
11	1	ID	O	0065	00245	Specimen Action Code *
12	250	CE	O		00246	Danger Code

ページ 33: [11] 削除			Jeff West		2009/03/05 17:44:00	
14	26	TS	B		00248	Specimen Received Date/Time *
15	300	SPS	B		00249	Specimen Source
16	250	XCN	O		00226	Ordering Provider
17	250	XTN	O		00250	Order Callback Phone Number
18	60	ST	O		00251	Placer Field 1
19	60	ST	O		00252	Placer Field 2
20	60	ST	O		00253	Filler Field 1 +
21	60	ST	O		00254	Filler Field 2 +
22	26	TS	C		00255	Results Rpt/Status Chng - Date/Time +
23	40	MOC	O		00256	Charge to Practice +
24	10	ID	O	0074	00257	Diagnostic Serv Sect ID
25	1	ID	C	0123	00258	Result Status +
26	400	PRL	O		00259	Parent Result +

ページ 33: [12] 削除			Josia Kammler		2009/03/02 8:57:00	
28	250	XCN	O		00260	Result Copies To

ページ 33: [13] 削除			Josia Kammler		2009/03/02 8:57:00	
30	20	ID	O	0124	00262	Transportation Mode
31	250	CE	O		00263	Reason for Study
32	200	NDL	O		00264	Principal Result Interpreter +
33	200	NDL	O		00265	Assistant Result Interpreter +
34	200	NDL	O		00266	Technician +
35	200	NDL	O		00267	Transcriptionist +
36	26	TS	O		00268	Scheduled Date/Time +
37	4	NM	O		01028	Number of Sample Containers *
38	250	CE	O		01029	Transport Logistics of Collected Sample *
39	250	CE	O		01030	Collector's Comment *
40	250	CE	O		01031	Transport Arrangement Responsibility
41	30	ID	O	0224	01032	Transport Arranged
42	1	ID	O	0225	01033	Escort Required
43	250	CE	O		01034	Planned Patient Transport Comment
44	250	CE	O	0088	00393	Procedure Code
45	250	CE	O	0340	01316	Procedure Code Modifier
46	250	CE	O	0411	01474	Placer Supplemental Service Information

ページ 34: [14] 削除 Jeff West 2009/03/13 18:10:00

Element Name	ORC Segment Element	OBR Segment Element
Placer Order Number	ORC-2	OBR-2
Filler Order Number	ORC-3	OBR-3
Quantity/Timing	ORC-7	OBR-27
Parent	ORC-8	OBR-29

ページ 34: [15] 削除 Josia Kammler 2009/03/02 9:00:00

1	4	SI	O		01627	Set ID - TQ1

ページ 34: [16] 削除 Jeff West 2009/03/05 10:52:00

2	20	CQ	OR2		01628	Quantity

ページ 34: [17] 削除 Josia Kammler 2009/03/02 9:00:00

3	540	RPT	O	0335	01629	Repeat Pattern
4	20	TM	O		01630	Explicit Time
5	20	CQ	O		01631	Relative Time and Units
6	20	CQ	O		01632	Service Duration

ページ 34: [18] 削除 Josia Kammler 2009/03/02 9:00:00

8	26	TS	O		01634	End date/time
9	250	CWE	O	0485	01635	Priority
10	250	TX	O		01636	Condition text
11	250	TX	O		01637	Text instruction
12	10	ID	C	0427	01638	Conjunction
13	20	CQ	O		01639	Occurrence duration
14	10	NM	O		01640	Total occurrence's

ページ 37: [19] 削除 Jeff West 2009/03/05 17:06:00

The following is an optional repeating segment that is required if nominal dose and /or treatment intent are known. If this segment is present, it is mandatory to follow certain rules (see section XX).

[JW2]OMG	General Order Message	Chapter in

		HL7 2.5
OBX	Observation/Result	7

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All (ORC, OBR) segment pairs sent in the *Create Radiotherapy Child Order* message shall be present in the Modify Radiotherapy Child Order message, not only the pairs introducing a change.

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Any other elements in the OBR or ORC segments may be changed when the Order Control Code = XO.

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OBX Segment

The OBX segment will be used to transmit Prescribed dose for the fraction, Delivered Dose for the fraction,Total delivered dose (for the parent order), Number of performed fractions (from children of the parent order), Number of planned (total) fractions (from the parent order). See Appendix X.X.X for detail regarding the OBX contents.

There may be 1 or more OBX segments.

Table XX.XX IHE Profile – OBX Segment

[JW4]SEQ	LEN	DT	OPT	TBL#	ITEM#	Element Name
11	1	ID	R	0085	00579	Observation Result Status

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Where is “resource” passed? As currently constituted, the only information on the child order is:

Date/time

Procedure code

Clinical observations

If we want to add other data, we need to add that to the create child order transaction.

See **Table B-1. HL7 Order Mapping to DICOM MWL in IHE-RAD ref8 v2 for physician, location or whatever we can use.**

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is expected to perform the following actions based on the value of the field *ORC-1 Order Control Code*:

XO – Child Order-related information (including scheduled date/time and/or resource[JW5]) has been changed. The TMS shall

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5	2	ID	R2[JK7][JW8]	0038	00219	Order Status

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4	250	CE	R		00238	Universal Service Identifier
27	200	TQ	B		00221	Quantity/Timing
29	200	EIP	R		00261	Parent [JW9]

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Element Name	ORC Segment Element	OBR Segment Element
Placer Order Number	ORC-2	OBR-2
Filler Order Number	ORC-3	OBR-3
Quantity/Timing	ORC-7	OBR-27
Parent	ORC-8	OBR-29

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{OBX}	Observation/Result	7

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7	200	TQ	B		00221	Quantity/Timing
8	200	EIP	R		00222	Parent

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4	250	CE	R		00238	Universal Service Identifier
27	200	TQ	B		00221	Quantity/Timing
29	200	EIP	R		00261	Parent

Field OBR-4 Universal Service Identifier shall be populated with a JJ1017 code [JW10]specific to radiation oncology.

Per the HL7 Standard, IHE recommends that the fields in ORC and OBR segments given in the following table contain the same information.

Identical Element Mappings between ORC and OBR Segments

Element Name	ORC Segment Element	OBR Segment Element
Placer Order Number	ORC-2	OBR-2
Filler Order Number	ORC-3	OBR-3
Quantity/Timing	ORC-7	OBR-27
Parent	ORC-8	OBR-29

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4	22	EI	C		00218	Placer Group Number

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6	1	ID	O	0121	00220	Response Flag
7	200	TQ	B		00221	Quantity/Timing

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8	200	EIP	O		00222	Parent

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9	26	TS	R		00223	Date/Time of Transaction

10	250	XCN	O		00224	Entered By
11	250	XCN	O		00225	Verified By
12	250	XCN	O		00226	Ordering Provider
13	80	PL	O		00227	Enterers Location
14	250	XTN	O		00228	Callback Phone Number
15	26	TS	O		00229	Order Effective Date/Time

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1	4	SI	O		00237	Set ID – OBR

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4	250	CE	R		00238	Universal Service Identifier
5	2	ID	B		00239	Priority – OBR
6	26	TS	B		00240	Requested Date/Time
7	26	TS	O		00241	Observation Date/Time #
8	26	TS	O		00242	Observation End Date/Time #
9	20	CQ	O		00243	Collection Volume *
10	250	XCN	O		00244	Collector Identifier *
11	1	ID	O	0065	00245	Specimen Action Code *
12	250	CE	O		00246	Danger Code
13	300	ST	O		00247	Relevant Clinical Information
14	26	TS	B		00248	Specimen Received Date/Time *
15	300	SPS	B		00249	Specimen Source
16	250	XCN	O		00226	Ordering Provider
17	250	XTN	O		00250	Order Callback Phone Number
18	60	ST	O		00251	Placer Field 1
19	60	ST	O		00252	Placer Field 2
20	60	ST	O		00253	Filler Field 1 +
21	60	ST	O		00254	Filler Field 2 +
22	26	TS	C		00255	Results Rpt/Status Chng - Date/Time +
23	40	MOC	O		00256	Charge to Practice +
24	10	ID	O	0074	00257	Diagnostic Serv Sect ID
25	1	ID	C	0123	00258	Result Status +
26	400	PRL	O		00259	Parent Result +

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28	250	XCN	O		00260	Result Copies To

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29	200	EIP	O		00261	Parent

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30	20	ID	O	0124	00262	Transportation Mode
31	250	CE	O		00263	Reason for Study
32	200	NDL	O		00264	Principal Result Interpreter +
33	200	NDL	O		00265	Assistant Result Interpreter +
34	200	NDL	O		00266	Technician +
35	200	NDL	O		00267	Transcriptionist +
36	26	TS	O		00268	Scheduled Date/Time +
37	4	NM	O		01028	Number of Sample Containers *
38	250	CE	O		01029	Transport Logistics of Collected Sample *
39	250	CE	O		01030	Collector's Comment *
40	250	CE	O		01031	Transport Arrangement Responsibility
41	30	ID	O	0224	01032	Transport Arranged
42	1	ID	O	0225	01033	Escort Required
43	250	CE	O		01034	Planned Patient Transport Comment
44	250	CE	O	0088	00393	Procedure Code
45	250	CE	O	0340	01316	Procedure Code Modifier
46	250	CE	O	0411	01474	Placer Supplemental Service Information

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Identical Element Mappings between ORC and OBR Segments

Element Name	ORC Segment Element	OBR Segment Element
Placer Order Number	ORC-2	OBR-2
Filler Order Number	ORC-3	OBR-3
Quantity/Timing	ORC-7	OBR-27
Parent	ORC-8	OBR-29

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5	2	ID	O	0038	00219	Order Status

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9	26	TS	R		00223	Date/Time of Transaction

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8	200	EIP	O		00222	Parent

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16	250	CE	O		00230	Order Control Code Reason

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9	26	TS	R		00223	Date/Time of Transaction
12	250	XCN	R		00226	Ordering Provider
15	26	TS	O		00229	Order Effective Date/Time
16	250	CE	O		00230	Order Control Code Reason

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Quantity/Timing	ORC-7	OBR-27
Parent	ORC-8	OBR-29

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16	250	CE	O		00230	Order Control Code Reason