

INTERNATIONAL CONFERENCE ON HARMONISATION OF TECHNICAL REQUIREMENTS FOR REGISTRATION OF PHARMACEUTICALS FOR HUMAN USE

ICH E2B(R3) Implementation Working Group

Electronic Transmission of Individual Case Safety Reports (ICSRs)

Questions & Answers

Version 1.00 November 12, 2014

Document Change History

Version Number	Date	Description
1.00	12/11/2014	Approved by Steering Committee

This Q&A document provides clarifications for the harmonized interpretation of the E2B(R3) IG package and should be reviewed in conjunction with the IG package. This will facilitate the implementation of the electronic transmission of Individual Case Safety Reports (ICSRs) in the ICH regions.

Pharmaceutical companies, regulators and vendors were encouraged to submit implementation-related questions to the ICH E2B(R3) IWG; answers to these questions were developed by the ICH E2B(R3) IWG in accordance with the ICH consensus process.

Questions concerning the time frame and specific regional requirements not communicated in the E2B(R3) guidance are answered in guidance documents published for each region.

Future update to this Q&A document, if any, will be published at ICH web site.

			E2B(R3) Qu	estions and Answers
Date of Approval	Docume nt	E2B (R3)data element	~	Answers
E2B(R3) Novem IWG0001 ber 10, 2014		N/A	characters listed in UTF8?	In principle, ICH "AN" data type accepts all characters, including space and some special characters listed in UTF8, but some characters such as > and < are not allowed with XML message. So please refer to section 3.6 of the ICH ICSR Implementation Guide for further clarification. However, ICH data elements with the ICH "AN" data type may not always have an one-to-one mapping with the data type in ISO/HL7 27953-2 ICSR message standard. The representation of the data can vary across implementations. For Example ICH F.r.4 Normal Low Value and ICH F.r.5 Normal high Value. These data elements specify use of the ICH AN data type; however, the ISO/HL7 27953-2 message specification restricts allowable XML schema values using the HL7 xsi:type code designation Physical Quantity (PQ). The HL7 PQ data type is expressed as two XML schema attributes: value and unit; value has HL7 REAL data type and units are expressed as UCUM codes. For the use and information of the HL7 data type, please refer to the ISO/HL7 27953-2 Informative Annex F: <i>HL7 Data Type Specification</i> . In the Business Rule section for the related data elements, the ICH ICSR Implementation Guide provides information and examples for representing the ICH AN data type with HL7 data type in transmission.

			E2B(R3) Qu	estions and Answers
Date of Approval	Docume nt	E2B (R3)data element		Answers
E2B(R3) Novem IWG0002 ber 10, 2014			not listed in allowed values?	No, only nullFlavors specified for each element in IG and Q&A document are acceptable. The value set of nullFlavor in Q&A supersede the value set stated in the IG.

	E2B(R3) Questions and Answers							
Date of Approval	Docume nt	E2B (R3)data element	Questions	Answers				
E2B(R3) Nove WG0003 ber 10 2014		N/A		Information about UCUM, including link to download the specification is available at: http://unitsofmeasure.org/trac/				

			E2B(R3) Qu	estions and Answers
Date of Approval	Docume nt	E2B (R3)data element	_	Answers
E2B(R3) Novem IWG0004 ber 10, 2014				The ISO/HL7 schema files automatically populate certain attributes with a default value, such as unit='1' for PQ data type and mediaType='text/plain' for ED data type. The ICSR sender should replace the default value with an appropriate value pertaining to the data being transmitted. For example, use the appropriate UCUM code for representing a unit of measurement for physical quantities (PQ) and media designation for encapsulated data (ED). To help reduce parsing errors, the sender should omit optional data element tags if there is no information to be transmitted. For example, patient age is an optional data element and the sender should omit the entire age observation class if no age value is known.

	E2B(R3) Questions and Answers							
Date Appro	of I oval	Docume nt	E2B (R3)data element	Questions	Answers			
E2B(R3) 1 IWG00051				consider in creating XML files for	Senders should refer not only to the ICH Implementation Guide and regional Implementation Guides but also its Appendices such as Reference instances, Technical Information and so on.			

			E2B(R3) Qu	estions and Answers
Date of Approval	Docume nt	E2B (R3)data element	Questions	Answers
E2B(R3) Novem IWG0006 ber 10, 2014			time values as described in Appendix II (C) ISO 8601 Compliant XML Examples in the IG ver. 5.01, parse error occurred. Can senders use the representations of date and time such	No, the examples described in Appendix II (C) are inappropriate. 'Z' should not be added at the end of time values. XML Schema defines the Time Zone value as <xs:pattern value="[0-9]{1,8} ([0-9]{9,14} [0-9]{14,14}\[0-9]+)([+ -][0-9]{1,4})?"/>, and Appendix II (B) Time Zone in the IG states that "The syntax is 'CCYYMMDDHHMMSS.UUUU[+ -ZZzz]' where digits can be omitted from right side to express less precision".</xs:pattern

			E2B(R3) Qu	estions and Answers
Date of Approval	Docume nt	E2B (R3)data element	Questions	Answers
E2B(R3) Nover IWG0007ber 10 2014		N/A	sensitive form or case insensitive	In the ICH E2B(R3) ICSR messages, case sensitive form should be used for codes. Please refer to regional guidance for more information about case sensitivity.

			E2B(R3) Qu	estions and Answers
Date of Approval	Docume nt	E2B (R3)data element	Questions	Answers
E2B(R3) Novem IWG0008 ber 10, 2014			implementation of very specific business rules for parsing – not	

	E2B(R3) Questions and Answers							
	Date of Approval Docume nt E2B (R3)data element Ques		Questions		Answers			
E2B(R3) IWG0009	Novem	IG ver	N/A	 partner became pregnant. But she has a miscarriage now. a) Is the ADR a miscarriage? b) Is the patient of the report the father or mother? c) Is the route of administration how the father took the medicine? 	 scenario regarding parent and a) Yes. In this case the A mother. b) The patient should be th c) Yes. The route of adm suspect medication. 	DR should be the miscarriage experienced by the ne mother. ministration should be how the father was given the rug administered to Mother Mother Miscarriage Product taken by mother Route administered to mother		
					Patient (D)	Mother		
					AE (E)	Miscarriage		
					Drug section (G)	Product taken by father		
					Route of Administration (G.k.4.r.10)	Use nullFlavor "UNK" in G.k.4.r.10.1 Describe information about father and mother in the narrative		
					Additional Information on Drug (G.k.10.r)	3 (Drug taken by the father)		

			E2B(R3) Qu	estions and Answers	
Date Appro	Docume nt	E2B (R3)data element	Questions		Answers
				Scenario 3: foetus or breas the mother <i>and</i> experience	t-feeding infant is exposed to drug(s) through d adverse events/reactions
				Patient (D)	Infant/foetus
				AE (E)	AE experienced by Infant/foetus
				Drug section (G)	Product taken by mother
				Route of Administration (G.k.4.r.10)	This is usually an indirect exposure, such as transmammary
				Parent Route of Administration (G.k.4.r.11)	Route administered to mother
				For a Parent-child / Foetus Report, Information Concerning the Parent (D.10)	Mother's information according to the user guidance for section D

Date of Approval	Docume	E2B (R3)data element	~	Questions and Answers Answers	
			Scenario 4: child/foetus ex drug(s) administered to fa	perienced adverse events/reactions through ther	
				Patient (D)	Child/foetus
				AE (E)	AE experienced by child/foetus
				Drug section (G)	Product taken by father
				Route of admin (G.k.4.r.10)	Use nullFlavor "UNK" in G.k.4.r.10.1 Describe information about father and mother in the narrative
				Parent Route of Administration (G.k.4.r.11)	Route administered to father
				Additional Information on Drug (G.k.10.r)	3 (Drug taken by the father)
				For a Parent-child / Foetus Report, Information Concerning the Parent (D.10)	Father's information according to the user guidance for section D

	E2B(R3) Questions and Answers									
Date of Approval	Docume nt	E2B (R3)data element	Questions	Answers						
E2B(R3) Novem IWG0010 ber 10, 2014	IG ver 5.01		 A serious case was sent electronically by a company to a Regulatory Authority. Meanwhile, due to follow-up information received at the company, this case is now determined to be non-serious. a) Should the company send a new message indicating that the case is now non-serious? b) Should the company send a new message to nullify the case in the Regulatory Authority's database? c) If the case becomes serious again, should the company send a new message with the same safety report identifier? 	report with the new information, indicating that the case is now non-serious.b) No, the company should not send a new message to nullify the case in the Regulatory Authority's database.						

	E2B(R3) Questions and Answers									
Date of Approval	Docume nt	E2B (R3)data element	Questions	Answers						
E2B(R3) Novem IWG0011 ber 10, 2014			by a Health Authority, should the company consider that: a) the Health Authority's causality	a) and b) by definition a spontaneous report contains suspected adverse reactions (i.e., a possible causal relationship is suspected but not established). However, there is no universally accepted definition for "possible" in the scale of causality assessment. It is therefore not possible to provide a precise answer to this question. It is up to the company and receiver to define causality assessment method and classify the case-reports accordingly.						

	E2B(R3) Questions and Answers									
Date Appro			(R3)data		Answers					
E2B(R3) N IWG0012E 2				Identifiers in the E2B R3	All references to M5 Identifiers in the Implementation Guide and associated technical documents should be replaced with ISO IDMP Terms and Identifiers.					

	E2B(R3) Questions and Answers									
Date of Approval	Docume	E2B (R3)data element		Answers						
E2B(R3) Novem IWG0013 ber 10, 2014		С.2.г.3	cases where the country of the primary source is not available to the sender' described in User Guidance of C.2.r.3.	No, it is not assumed that the country of the primary source is not available to sender and there is not any case that E.i.9 is used as alternative of Reporter's Country Code. In this context, the description in User Guidance of C.1.1 'in exceptional circumstances where the country of primary source is unknown, the country where the reaction occurred (E.i.9) should be used to indicate the country code' is also inappropriate. A change of E.i.9 never change Sender's (case) Safety Report Unique Identifiers.						

	E2B(R3) Questions and Answers										
Date of December 2015	ocume nt	E2B (R3)data element	Questions	Answers							
E2B(R3) Novem IG IWG0014 ber 10, 5.0 2014		C.2.r	and the reporter qualification when an ICSR is forwarded by Health Authorities with minimal or no	If no information on the primary source is available, section C.2.r should identify the Health Authority as the primary source. Field C.2.r.4 'Qualification' should be populated with nullFlavor "UNK". Additionally, field C.1.3 'Type of report' may be populated with a code of "4" (Not available to sender (unknown), if appropriate.							

	E2B(R3) Questions and Answers										
Date of Approval	Docume nt	E2B (R3)data element	Questions	Answers							
E2B(R3) Novem IWG0015 ber 10, 2014			"Required". Even if a sender has only first received information and no	Yes, a sender must enter date. If a sender has only first received information, the date of first received information and the date of most recent information are same, so a sender enter the date correspond to C.1.4 in C.1.5.							

	E2B(R3) Questions and Answers									
Date of Approval	Docume nt	E2B (R3)data element	Questions	Answers						
E2B(R3) Noven IWG0016 ber 10 2014				No, the description of Business Rule(s) of C.2.r.3 is inappropriate. E.i only allows a two character country code.	.9					

	E2B(R3) Questions and Answers									
Date of Approva		E2B (R3)data element	-	Answers						
E2B(R3) Nov IWG0017 ber 201	10, 5.01		ver. 5.01 doesn't match what is stated in Appendix I (B) Backwards and Forwards Compatibility	The business rule for ICH D.1. Patient (name or initial) concerning the use of allowable null flavor values is incomplete. Senders should refer to table in section 5.6.2 nullFlavour for Fields Required in E2B(R3) and follow guidance concerning use of additional null flavor values for D.1., which include the use of: MSK, ASKU, NASK, UNK value options.						

	E2B(R3) Questions and Answers									
Date of Approval	(R3)data (Questions	Answers						
E2B(R3) Novem IWG0018 ber 10, 2014	5.01 and BFC ver.	and D.10.7.1. r.3	parent medical history)' (i.e., B.1.7.1d or B.1.10.7.1d in E2B(R2)) is provided with value '3' (unknown) in E2B(R2), the corresponding field	The business rule for D.7.1.r.3 or D.10.7.1.r.3 Continuing concerning the use of allowable null flavor values is incomplete. MSK, ASKU, NASK and UNK are allowed for D.7.1.r.3 and D.10.7.1.r.3. Senders should follow the guidance of upgrading to E2B(R3) or downgrading to E2B(R2) in section 5.6.3 Null Flavour for Optional Codes and Dates concerning use of the null flavour UNK for D.7.1.r.3 or D.10.7.1.r.3. This correction is reflected in the BFC version 2.01 (modified in November 2014).						

	E2B(R3) Questions and Answers										
Date of Approval	Docume nt	E2B (R3)data element	Questions	Answers							
E2B(R3) Novem IWG0019 ber 10, 2014			 About E2B(R3) data element: E.i.3.2 Seriousness Criteria at Event Level, a) How to describe "unknown" and "not serious"? What is allowed value for this data element? b) How to describe allowed values and "left blank" in XML? 	data element. This mandatory data element should either be 'true' or nullFlavor= 'NI'.When the information is unknown or the event is not serious, "NI" should							

				E2	2B(R3) Qu	lestions and Answers
Date of Approval	Docume nt	E2B (R3)data element	~			Answers
E2B(R3) Novem IWG0020 ber 10, 2014		E.i.5	Reaction Sequenc e Reaction 1 Reaction 2 Reaction 3 How to get end date der we have to reaction and	the blank start consider start date <u>01-Feb-20</u> <u>10</u> 03-Feb-20 <u>10</u> - the blank start dend date of vill not be con	E.i.5 End date 02-Feb-20 10 - 01-Jan-20 10 rt date and r the IG, if date of first last reaction,	Senders should populate the most accurate information known for each event. A blank field for start date or end date or both is acceptable if the information is not known to the sender. When a precise date is not available, the decision of whether to leave blank or an inferred date for a given event should be left up to the sender's clinical judgment. If the events are thought to be related (i.e., if event1 is a sign or symptom of event2), it would be clinically reasonable to use the earliest start date or latest end date, as relevant, for both events. However, a sender should not infer dates unless there is a clear clinical rationale and this rationale should be stated in the case narrative.

	E2B(R3) Questions and Answers									
Date of Approval	Docume nt	E2B (R3)data element	Questions	Answers						
E2B(R3) Novem IWG0021 ber 10, 2014				The conformance of F.r.3.1 is clarified as follows. Optional, but required if F.r.2 is populated, and neither F.r.3.2 nor F.r.3.4 is populated".						

	E2B(R3) Questions and Answers										
Date of De Approval			Questions	Answers							
E2B(R3) Novem IG IWG0022 ber 10, 5.0 2014			'PINF' implemented in ICH E2B(R3)?	When empty data elements are transmitted, NullFlavors are used to <i>code</i> the reason for the lack of data in a standardized manner. This allows for the creation of valid messages containing mandatory elements without transmitting content. For ICH E2B(R3), the NullFlavors ' NINF ' (negative infinity of numbers) and ' PINF ' (positive infinity of numbers) are used only for the data element ICH E2B(R3) <i>F.r.3.2 Test Result</i> , and only when the element describes a range (e.g. data type IVL<>) with an (unknown) infinity. For example, the concept of 'equal or greater to 3' can be represented as the range from '3' to 'positive infinity', e.g. <i>any</i> (unknown) number greater than 3.							

				E2B(R3) Qu	estions and Answers		
	Date of Docume (R3)d		E2B (R3)data element	Questions	Answers		
E2B(R3) IWG0023		IG ver 5.01		added to the value when appropriate. The supported qualifiers are 'greater than', 'less than', 'greater than or	No, senders cannot add a qualifier symbol in this data element. This data element captures the value (amount) for the test result. In ICSR message, this data element is represented in HL7 IVL_PQ data type which is a composite data type with multiple attributes. "Positive Infinity (PINF)" and "Negative Infinity (NINF)" null flavors are used to express "Greater than" and "Less than" a specific value respectively. Followings are examples for test results with exact value, greater or less than a specific value. Test Result = 10 (mg/dl) <u><value xsi:type="IVL_PQ"></value></u> <center unit="mg/dl" value="10"></center> Test Result < 10 (mg/dl) <u><value xsi:type="IVL_PQ"></value></u> <low nullflavor="NINF"></low> <high <br="" value="10">unit="mg/dl" inclusive="false"/> Test Result <= 10 (mg/dl) <u><value xsi:type="IVL_PQ"></value></u> <low nullflavor="NINF"></low><high <br="" value="10">unit="mg/dl" inclusive="false"/> Test Result <= 10 (mg/dl) <u><value xsi:type="IVL_PQ"></value></u> <low nullflavor="NINF"></low><high <br="" value="10">unit="mg/dl" inclusive="false"/> Test Result >= 10 (mg/dl) <u><value xsi:type="IVL_PQ"></value></u> <low <br="" value="10">unit="mg/dl" inclusive="false"/> Test Result >= 10 (mg/dl) <u><value xsi:type="IVL_PQ"></value></u> <low <br="" unit="mg/dl" value="10">inclusive="false"/></low></low></high></high></high>		

	E2B(R3) Questions and Answers										
Date of Approval Docume		E2B (R3)data element		Answers							
E2B(R3) Novem IWG0024 ber 10, 2014			If a value of test results does not have a suitable UCUM code or a unit (for example International Normalized Ratio, INR) or a unit of test results is unknown, how should the test results be entered?	In such case, senders should enter the value and unit as unstructured data in F.r.3.4.							

	E2B(R3) Questions and Answers										
Date of Docume Approval nt		E2B (R3)data element		Answers							
E2B(R3) Novem IWG0025 ber 10, 2014	5.01	and G.k.7.r.2		The free text 'Not specified' or 'Unknown' should be expressed by using nullFlavor.							

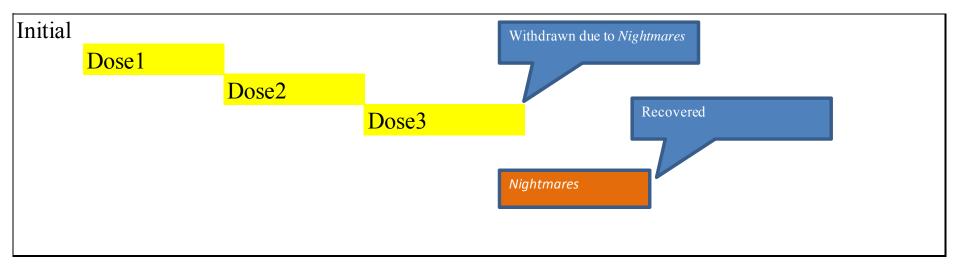
	E2B(R3) Questions and Answers									
Date of Docume (R3		E2B (R3)data element		Answers						
E2B(R3) Novem IWG0026 ber 11, 2014		G.k.8	 a) How should re-administration data be entered after recovery from AE, e.g., G.k.4.r.8 or G.k.4.r repetition? b) When multiple dosage information (G.k.4.r) is available for a drug, which dosage information should be used for G.k.8? c) Is it possible to identify the re-administration after drug is discontinued or after drug is temporarily stopped? 	Answers to question a) through c) are summarized into the scenarios below: The data element (G.k.8) is not a repeatable data element and captures the action taken with the <i>suspect</i> drug as a result of the reaction(s) / event(s) as provided by the reporter of the information. This data element is a within the 'parent' instance of G.k Drug and only one action can be captured for each instance of G.k Drug . Because this data element is not associated with its own 'time' element, the relevant 'time' for G.k.3 Action(s) Taken with Drug is the onset of the reaction. Analysis of the dosage information records in G.k.4 in combination with start date of the reaction/event in E.i.4 – Date of Start of the Reaction/Event – would enable the receiver of the information to determine the relevant G.k.4 Dosage Information record associated with the reaction(s)/event(s). The information related to the outcome of the reaction(s)/event(s) is noted in E.i.7 - Outcome of Reaction / Event at the Time of Last Observation . If the reaction kecur on Re-administration ? would be set to 2 (rechallenge was done, reaction did not recur) and E.i.7 – Outcome of Reaction / Event at the Time of Last Observation would be set to 1 = recovered/resolved. An example is provided in Appendix A.						

	E2B(R3) Questions and Answers										
	Date of Approval Docume (R3)da		E2B (R3)data element	Questions	Answers						
E2B(R3) IWG0027				on coding reports of possible counterfeit drugs.	"1" should be selected for both suspected and confirmed counterfeit products in G.k.10.r and the appropriate MedDRA term should be selected for E.i.2.1b. Any explanatory information should be included in case narrative. If new information is received to confirm the product is not a counterfeit, then G.k.10.r should be changed appropriately as follow up. If the product is confirmed as a counterfeit, the sender should use the appropriate MedDRA code in H.3.r and explain in narrative.						

Appendix A

Example for E2B(R3)IWG0026

Consider a patient starting a drug for smoking cessation. The dose is titrated upwards over 2 weeks. After 4 weeks of use, the patient has onset of nightmares. As a result, the drug is withdrawn and subsequently the reaction/event is resolved.

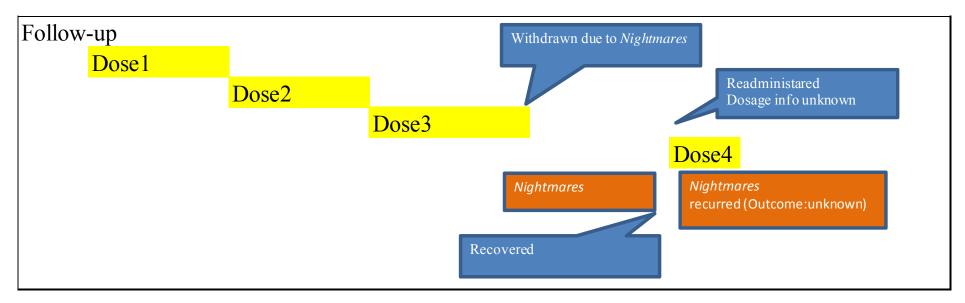


Parent Element		Parent Value	Child Element		Child Value
C.1.5 Date of Most Recent		February			
Information for This Report		2 nd			
G.k.2 Drug Identification	k= 1	'QuitSmoking'			
G.k.8 Action(s) Taken with	k= 1	'drug			
Drug		withdrawn'			
				k= 1 ,	January 1 st : 0.5mg daily, orally, x 7
			G. <mark>k</mark> .4.r Dosage and	r=1	days
			Relevant Information	k= 1 ,	January 8 th : 1mg daily, orally, x 7
				r=2	days

	k= 1 ,	January 15 th -29 th :1mg twice daily,
	r=3	orally (stopped)
G. <mark>k</mark> .9.i		January 29 th : onset of (E.i.1) =
Drug-reaction(s) /	i=1	Nightmares;
Event(s) Matrix		(E.i.7=1-Recovered/Resolved)

Follow-up ICSR:

Subsequently two weeks later, the drug re-introduced (dose, duration and action taken are unknown) and the reaction/event recurred.



Parent Element		Parent Value	Child Element	Child Value
C.1.5 Date of Most Recent		March 15th		
Information for This Report				
G.k.2 Drug Identification	k=1	'QuitSmoking'		
G.k.8 Action(s) Taken with	k=1	'Unknown'		

Drug			
	G.k.4.r Dosage and Relevant Information	k=1, r=1 k=1, r=2 k=1, r=3 k=1, r=4	January 1 st : 0.5mg daily, orally, x 7 days duration January 8 th : 1mg daily, orally, x 7 days duration January 15 th -29 th : 1mg twice daily, orally (stopped) February 13 th : unknown, unknown
	G. <mark>k</mark> .9.i Drug-reaction(s) / Event(s) Matrix	i=1	January 29 th : onset of (E.i.1) = <i>Nightmares</i> ; G.k.9.i.4 = 1 yes - yes (rechallenge was done, reaction recurred); (E.i.7=0-Unknown)