# Change protocol of the XSD standards in question

### Change protocol from generalInvoiceRequest440 to generalInvoiceRequest450

| ID | Change description |
|----|----|
| 1 | Any usage of the German name "ChiropraktikerIn" (e.g. in a printout of the role) is changed to "ChiropraktorIn". The XSD schema is not targeted by this issue but the printTemplate – cf there. |
| 3 | All Tarmed-like services whose quantity is calculated by the "Divisor Method" are under-determined regarding a possible deconvolution. Therefore, an additional optional element with a single attribute **@group_size** is defined under the Tarmed service. |
| 4 | The new type of ESR with QR code valid from mid-2018 is included as additional element **esrQR**. <br><br> The element **esr5Type** has been deleted due to the expiration of the standard <br><br> The explicit creditor's address **esr9Type/creditor** and **esrRedType/creditor**, respectively was included due to naming scheme restrictions enforced by the Anti-Money Laundering Act, Art. 95, 98 FC. |
| 7 | The attributes <br>      **//*lawType@contract_number** <br>were deleted without a replacement. |
| 8 | The constraining facet of all tax point attributes **//@unit_mt, //@unit_tt, //@unit** are relaxed thus allowing negative values as well |
| 10 | The **card@expiry_date** attribute of the patient card element is made optional. |
| 13 | The pattern for the IBAN attribute **esrRed@iban** is corrected as to allow characters in the account number. Furthermore, the pattern is extended to include Switzerland and Liechtenstein nonetheless. <br><br> The final pattern is: <pattern value="(LI\|CH)[0-9]{7}[0-9A-Z]{12}"/> |
| 16<br>36<br>46<br>53 | The allowed type of documents is reduced to PDF, jpeg, and png by attaching a pattern to the mime type attribute **documentType@mimeType**. <br><br> The final pattern is: <pattern value=" (application/pdf\|image/jpeg\|image/png)"/> |
| 17 | The balanceType container is moved and splitted up into two tiers dependent structures, newly located in **garantType/balanceTGType** and **payantType/balanceTPType**, respectively. <br><br><br> The reason for the splitting is to delete the prepaid amount in the TP case **balanceTPType@amount_prepaid,** since in general there is no such advanced payment of that debitor. |
| 18 | More precise wording of the processing attributes **processing@print_at_intermediate** and **processing@print_copy_to_guarantor**. The later one is a rename from processing@print_patient_copy. |
| 20 | The set of allowed data formats of the attributes <br>      **//recordTarmedType@provider_id, //recordTarmedType@responsible_id** <br>      **//recordServiceType@provider_id, //recordServiceType@responsible_id** <br>of any service is restricted to type GLN. |

| 21 | All epoch timestamp attributes //**@request_timestamp** have been refined regarding the allowed data space. The allowed value space correlates with a date between 1.1.2015 and 31.12.2030. |
|---|---|
| 25 | The attribute **treatmentType@gestation_week13** has been added to allow for the definition of the 13th gestation week. This week is requested by Article 105 of the Swiss Federal Act on Health Insurance (KVG) and is set by gynecologists once only in the first invoice with treatment type **maternity**. |
| 26 | The principle treatment type is re-established as a TOKEN set attribute **treatment@treatment**. The allowed set is {ambulatory\|stationary}. |
| 29 | The attribute **payload@if_storno_followup_invoice_probable** was included allowing to give a hint whether a follow-up invoice is likely been generated and sent to the debitor.<br><br>The attribute bears a semantic relevance solely in case of a storno process. All other processes are not targeted by this attribute at all. |
| 30 | The concept of a credit advice is understood and adopted poorly, and is thus eliminated from the standard. Therefore, the attribute **payload@credit_advice** is deleted |
| 33 | The typed service structure is changed into an untyped structure such that there are 2 distinct types of services **service** and **service_ex**, respectively.  The structure of service is the structure of a simple tariff basically consisting of code, name, tp, tpv, amount etc. On the other hand, service_ex has a splitted nature –a medical and technical part– like the Tarmed tariff. Furthermore, the structure of service_ex is augmented by additional data like medical_role, billing_role etc. such that all data of the former record_tarmed can be mapped without loss. |
| 35 | Preciser wording for the attributes<br>        //**recordTarmedType@session, //recordServiceType@session**<br>regarding the session concept and the value space in its absence. |
| 39 | The attribute **xtraStationaryType@do_cost_assessment** was moved to the hospitalMCDRequest due to a request of the Federal Data Protection and Information Commissioner (FDPIC). |
| 41 | The debitor address construct **debitorAddressType** is included as the antonym of the biller. The debitor receives an invoice/reminder and is the debitor in the invoice/reminder process.<br><br>The inclusion of that structure is a semantic clarification since prior standards did not have a named endpoint of the invoice/reminder process. |
| 47 | A new attribute **documentType@title** has been included that basically serves as indicator for the semantic content of the file. |
| 50 | Preciser wording of the reminder text attribute<br>        **reminder@reminder_text**<br>as being formed solely as ASCII text. |
| 51 | Change in the usage and structure of a Datamatrix code on invoices/reminders.<br><br>In Tiers Payant (**TP**) cases the Datamatrix code is no longer applied, because the location on the invoice is occupied by the QR code.<br><br>In Tiers Garant (**TG**) cases the application of a Datamatrix code is optional and on invoices only ("Rückerstattungsbeleg"). The size is changed to 40x40 (thus allowing for a total of 169 characters) and the content is expanded by a list of mod10 check digits of the services amounts, and lastly terminated by the # symbol.<br><br>As documented in the prior standard, the Datamatrix content is either trimmed to or expanded by '0' up to the maximal number of 169 characters. |

| ID | Change description |
|---|---|
| 56 | The attributes //**recordServiceType@validate** and //**recordTarmedType@validate** of any service element were deleted.<br><br>The reason is that validators are unstandardized and vendor specific in the first place. Furthermore, there exist tariffs without a known validator implementation. Lastly, there is often a misinterpretation of the attribute as being "correct" vs "incorrect" instead making a statement about "running through a validator". |
| 58 | The viewer attribute **documentType@viewer** was deleted, since there is no usage for that information. |
| 59 | An instruction list //**processingType/instructions/instruction** consisting of simple token/value pairs was added by demand of the cantons.<br><br>The structure is a simple instructions container that holds an unbounded number of instruction. The latter consisting of 2 string attributes of 255 length **instruction@token**, **instruction@value**. |
| 60 | The element **validations** and all related sub elements located in the processing element have been deleted due to a non-existent business case. |

**Change protocol from generalInvoiceResponse440 to generalInvoiceResponse450**

| ID | Change description |
|---|---|
| 4 | The new type of ESR with QR code valid from mid-2018 is included as additional element **esrQR**.<br><br>The element **esr5Type** has been deleted due to the expiration of the standard<br><br>The explicit creditor's address **esr9Type/creditor** and **esrRedType/creditor**, respectively was included due to naming scheme restrictions enforced by the Anti-Money Laundering Act, Art. 95, 98 FC.<br><br>The element **reimbursement/creditor** was deleted since the creditor element is moved into the different ESR elements (cf. above). |
| 6 | Inclusion of a **documents/document** structure into the standard, that allows for including a variable quantity of documents of type (PDF|jpeg|png) as Base64 coded octets. |
| 13 | The pattern for the IBAN attribute **esrRed@iban** is corrected as to allow characters in the account number. Furthermore, the pattern is extended to include Switzerland and Liechtenstein nonetheless.<br><br>The final pattern is: <pattern value="(LI|CH)[0-9]{7}[0-9A-Z]{12}"/> |
| 21 | All epoch timestamp attributes //**@request_timestamp** and //**@response_timestamp** have been refined regarding the allowed data space. The allowed value space correlates with a date between 1.1.2015 and 31.12.2030. |
| 30 | The concept of a credit advice is understood and adopted poorly, and is thus eliminated from the standard. Therefore, the attribute **payload@credit_advice** is deleted |
| 41 | As a measure of identification of the various parties the request's debitor is included by its GLN **body/debitor**. |
| 47 | A new attribute **documentType@title** has been included that basically serves as indicator for the semantic content of the file. |

**Change from generalFormRequest430 to generalFormRequest450**

| ID | Change description |
|----|-------------------|
| 6 | Inclusion of a **documents**/**document** structure into the standard that allows for including a variable quantity of documents of type (PDF\|jpeg\|png) as Base64 coded octets. |
| | |
| 21 | All epoch timestamp attributes //@**request_timestamp** have been refined regarding the allowed data space. The allowed value space correlates with a date between 1.1.2015 and 31.12.2030. |
| 47 | A new attribute **documentType@title** has been included that basically serves as indicator for the semantic content of the file. |
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| 58 | The viewer attribute **pdfFileType@viewer** was deleted, since there is no usage for that information. |

**Change protocol from generalFormRequest430 to generalFormRequest450**

| ID | Change description |
|----|-------------------|
| 6 | Inclusion of a **documents**/**document** structure into the standard, that allows for including a variable quantity of documents of type (PDF\|jpeg\|png) as Base64 coded octets. |
| | |
| 21 | All epoch timestamp attributes //@**request_timestamp** and //@**response_timestamp** have been refined regarding the allowed data space. The allowed value space correlates with a date between 1.1.2015 and 31.12.2030. |
| 47 | A new attribute **documentType@title** has been included that basically serves as indicator for the semantic content of the file. |

**Change protocol from generalNotification440 to generalNotification450**

| ID | Change description |
|----|--------------------|
| 6 | Inclusion of a **documents**/**document** structure into the standard that allows for including a variable quantity of documents of type (PDF\|jpeg\|png) as Base64 coded octets.<br><br>The element **body/pdf_file** is deleted in favor of the above documents/document structure. |
| 21 | All epoch timestamp attributes //@**request_timestamp** and //@**timestamp** have been refined regarding the allowed data space. The allowed value space correlates with a date between 1.1.2015 and 31.12.2030. |
| 22 | The default value of the attribute /**notification@is_confidential** is changed to "false" in accordance with article 42 (5) KVG |
| 47 | A new attribute **documentType@title** has been included that basically serves as indicator for the semantic content of the file. |

**Change protocol from hospitalMCDRequest440 to hospitalMCDRequest450**

| ID | Change description |
|---|---|
| 16<br>36<br>46<br>53 | The allowed type of documents is reduced to PDF, jpeg, and png by attaching a pattern to the mime type attribute **documentType@mimeType**.<br><br>The final pattern is: \<pattern value=" (application/pdf\|image/jpeg\|image/png)"/> |
| 21 | All epoch timestamp attributes //@**request_timestamp** have been refined regarding the allowed data space. The allowed value space correlates with a date between 1.1.2015 and 31.12.2030. |
| 22 | The default value of the attribute /**request@is_confidential** is changed to "false" in accordance with article 42 (5) KVG |
| 39 | The attribute **grouperType@do_cost_assessment** is moved from the generalInvoiceRequest to the hospitalMCDRequest by demand of the Federal Data Protection and Information Commissioner (FDPIC).<br><br>All elements holding BfS statistic codes **grouperType/bfs_*** , namely bfs_admission_type, bfs_residence_before_admission, bfs_decision_for_discharge, bfs_residence_after_discharge, have been deleted to resolve  a data redundancy with generalInvoiceRequest.<br><br>The element **body/record_drg** was deleted and its former sub-element **record_drg/grouperType** is newly attached to the body element with a cardinality of 1. The Federal Data Protection and Information Commissioner (FDPIC) requested this remodeling to be in accordance with Article 42 (5) of the Swiss Federal Act on Health Insurance (KVG). |
| 47 | A new attribute **documentType@title** has been included that basically serves as indicator for the semantic content of the file. |
| 58 | The viewer attribute **documentType@viewer** was deleted, since there is no usage for that information. |

**Change protocol from hospitalMCDResponse440 to hospitalMCDResponse450**

| ID | Change description |
|---|---|
| 6 | Inclusion of a documents/document structure to include into the standard that allows including a variable quantity of documents of type (PDF\|jpeg\|png) as Base64 coded octets. |
|  |  |
| 21 | All epoch timestamp attributes //@**request_timestamp** and //@**response_timestamp** have been refined regarding the allowed data space. The allowed value space correlates with a date between 1.1.2015 and 31.12.2030. |
| 47 | A new attribute **documentType@title** has been included that basically serves as indicator for the semantic content of the file. |