Recip-e electronic prescriptions message content requirements examples and testing rules for Kmehr version 1.28 (valid from 01/05/2020)

October 4th 2019
(this document is subject to an extended review)

!! The document Recip-e_general_dematerialisation_specifications must be read prior to reading this document

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1. Essential principles concerning end-to-end communication in Recip-e

Recip-e is a secure communication service between prescribers and executors of the prescriptions, so it is essential that end-to-end understanding is guaranteed, by using the same format (KMEHR XML), by obeying the same constraints and content conventions.

Recip-e's fundamental principle 1:

Everything possible with paper-based prescriptions must be possible via the electronic prescriptions!

WE NEVER WANT TO HEAR "THIS (allowed action) IS NOW IMPOSSIBLE BECAUSE WE USE ELECTRONIC PRESCRIPTIONS"

The Recip-e transport service is in no way a hindrance to any content or any legal or useful manipulation of prescriptions; the software of prescribers and of dispensers of electronic prescriptions, making use of Recip-e as a secured transport system, should also work in this spirit: the functions and end-user friendliness must comply with the normal practice of the health care workers and offer them transparency and intervention functions that enable them to work at least better with electronic prescriptions than with paper ones.

End-users must also clearly be guided functionally, so that they fully understand the functions that they must be able to perform and what is available to them to intervene correctly concerning prescribers:

- creation and verification of a prescription
- sending in a prescription
- printing of a "proof of electronic prescription"
- revoking a prescription (and taking back the proof of prescription)
- announcing a prescription to a pharmacy
- follow-up on a prescription for a given patient
- interpreting possible error messages (local ones or network - eHealth-Recip-e originating ones)

and concerning dispensers:

- collecting an electronic prescription
- identity of patient
- information concerning the prescriber
- items of prescribed medications
- either delivering or "marking as undelivered"
- make annotations, linked to a prescription
- send feedback to a prescriber
- follow-up of the prescription in the local system in the pharmacy
- manipulations for the tarification
- archiving
- interpreting possible error messages (local ones or network - eHealth-Recip-e originating ones)

Recip-e's fundamental principle 2:

We maximally strive towards fully encoded prescriptions (regarding packaged medicines, substances, posologies/regimens, compound prescriptions) but the prescriber package must NEVER block a prescriber to prescribe ANYTHING he wants, but then only in text format [be it in a number of well specified locations, or XML tags].

Recip-e's fundamental principle 3:

We maximally strive towards fully encoded prescriptions (regarding packages, substance prescribing, posologies/regimens, compound preparations) but the executor package should always inform the dispenser of all useful non-coded information or comments, introduced by the prescriber into the electronic prescription [be it in a number of well specified locations, or XML tags].

Guidelines regarding user friendliness Following functions must be provided in a way, as straightforward as possible, conforming the daily practice of the health workers.

At the prescriber's side:

Prescribers must have full control about their electronic prescriptions:

- first: locally:
  - entering patient's ID, entering medication, comments
  - with controls regarding: completeness, dates, possible adverse effects and allergies, up-to-dateness of the codes in the medication (CNK)
  - visual control of what they are about to prescribe and what they have sent in on Recip-e prescriptions.

- Then: regarding Recip-e transmission:
  - possible revoking (accompanied by revoking of the proof of prescription!)
  - enquiring via Recip-e about "open prescriptions" for a given patient
  - possible warning of a pharmacist that a prescription might be under way

At the dispenser's side:

Dispensers (pharmacists, physiotherapists, nurses) must have a clear view of their possible actions, which must enable them

- obtaining an electronic prescription from Recip-e
- viewing insurability messages from MyCareNet (when reimbursable items are present)
- handling the items on the prescription (correspondence matching between prescribed items and delivered items (scanned boxes)) in 0 or 1 mouseclick
- possibly giving the prescription back to the patient when no delivery is made (markAsUndelivered)
  also, giving back the "proof of prescription"

- matching items with “scanned boxes”
- to make annotations linked to the prescription (prescriptions themselves cannot and should never be modified by the dispenser)
- handling of administration
- then, locally: all administrative steps to follow-up, review, collect for tarification offices and report to them, mark for archiving and verify archiving is confirmed.

Software providers should make all the contents of the electronic prescription, needed by or useful to the care provider, easily available in electronic format:

- all the items (coded or not coded)
- all the posology/regimen data (coded or not coded)
- possible remarks (in text format) made by the prescriber
- identity and contact info of the prescriber

An “error reporting button” should be provided so that the following info is sent to the HTML forms:

https://recip-e.be/supportpharma_nl/ or https://recip-e.be/supportpharma_fr/

To: recip-e

Naam + Voornaam: Naam Voornaam

Email: apo@server.be

Telefoonnummer: 0456 123 xyz

APB-nummer: xxxxxx

Naam softwarepakket: Pakket-voor-apothekers / Pakket-voor-voorschrijvers

RID (recip-e ID): BEP01234567

Gelieve het probleem te specifiëren: Probleem: Aanwezigheid van onbekende/oude producten

Commentaar :

Foutmelding :

XML-versie van het voorschrift :

2. Coding of medication requirements

The electronic prescriptions must satisfy the KMEHR-XML requirements. In addition, a supplementary recip-e xsd is available in order to restrict possibilities, and to limit possible incorrect interpretation of the electronic prescription.

Supplementary information and constraints are specified in following paragraphs.

For prescriptions specifying a “medicinalproduct”, as much as possible, a CNK-code should be used to uniquely and unambiguously identify the desired product. Specification of a CNK will allow the pharmacist to correctly meet prescriber’s intentions.

For prescriptions specifying a “substanceproduct”, INN-cluster should be identified by its cluster code as present in SAMv2 (VMPgroup_ID, do not confuse with VMP_ID!), using CD-VMPGROUP as the value of the intended ‘S’ attribute.

Example: <intendedcd SV="LOCALDB" S="CD-VMPGROUP">0000174</intendedcd>

Use of SAMv2 (or a SAMv2-compliant alternative) is mandatory. Moreover, prescribers and their software providers should pay attention to use a recent version in order to avoid the prescription of products that are no longer available on the market.

Proof of the use of a recent version of SAMv2 is indicated both on the kmehr Header level (see page 8), as well as on the individual medication or INN-cluster level (see page 30).

For prescriptions using “compoundprescription” either text or coded substances are allowed. Coded substances can be found e.g. in SAMv2, on the NIHDI website (reimbursed substances, see http://www.inami.fgov.be/SiteCollectionDocuments/magistrale_bereidingen_referentiebestand.xlsx and http://www.inami.fgov.be/SiteCollectionDocuments/magistrale_bereidingen_detailregistratie_referentiebestand.pdf) or through MFK-QMP (database of FTM-TMF preparations available through webservices, contact via http://www.mfk-qmp.be/nl/content/contact).

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3. Content requirements and examples:

3.1 General

An electronic prescription should always make use of **UTF-8 encoding**. An electronic prescription is based on the general format of a KMEHR medicinal prescription message with following structure:

As from 01/05/2020 electronic prescriptions may be based on Kmehr version 1.28. As from 01/06/2020, the use of Kmehr version 1.28 is mandatory.

In order to avoid incorrect interpretation of the prescription, software vendors (both prescriber and pharmacist) should make correct and uniform use of S and SV attributes when referring reference tables. Detailed information about correspondence between SV attribute of the reference table and Kmehr version can be found at https://www.ehealth.fgov.be/standards/kmehr/en/data/file/view/AWB0u2nS76L5eAMXea8j?name=Tables_Versions_Latest.xls

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<kmehrmessage xmlns="http://www.ehealth.fgov.be/standards/kmehr/schema/v1">
```

3.2 Header

The header should contain:

- **Kmehr Standard information**

  Standard to be used: Kmehr version 1.28 (SV attribute = 1.29), value = 20190301

- **2 message IDs:**
  - The first ID is of type “ID-KMEHR” (Message Header ID, see https://www.ehealth.fgov.be/standards/kmehr/en/page/kmehr-identifier)
  - The second ID is of type “LOCAL” and contains a local message-ID. SL attribute needs to be specified
- **Date and Time information**
- **Sender information:**

  At least 2 hcparties need to be present:
  - The first one contains the identification of the prescriber (or its institution in case of e.g. a hospital). It should contain the following elements:
    - id: specifying the sender’s NIHII-number (with S attribute = ID-HCPARTY)
    - cd: specifying the sender’s qualification (with S attribute = CD-HCPARTY). Only the following values are allowed: orghospital, persphysician, persmidwife, persdentist.
    - Name or combination firstname and familyname

- The second one MUST contain the identification of the software used. This information is not shown to pharmacists, but is essential for the helpdesk for efficiently tracing software vendor in case of technical problems. It should contain the following elements:
    - cd: with value ‘application’
    - Name of the software vendor
    - At least one telephone number and e-mail address for contacting software vendor

- **Recipient information:**

Recipient is always recip-e and therefore recipient element must contain the following data:

```
<recipient>
    <hcparty>
        <id S="ID-HCPARTY" SV="1.0">RECIPE</id>
        <cd S="CD-HCPARTY" SV="1.15">orgpublichealth</cd>
        <name>Recip-e</name>
    </hcparty>
</recipient>
```

- **SAMv2 version information:**

In order to proof the use of a recent version of the SAMv2 database (either local or through webservices), the “SamId” as present in SAMv2 should always be mentioned within the element “externalsource” as indicated below.

```
<externalsource>
        <source>
                <cd S="CD-EXTERNALSOURCE" SV="1.0">samv2</cd>
                <version>E20200115</version>
        </source>
</externalsource>
```

```
<header>
    <standard>
        <cd S="CD-STANDARD" SV="1.29">20190301</cd>
    </standard>
    <id S="ID-KMEHR" SV="1.0">19006951001.20090110090000000</id>
    <id S="LOCAL" SL="ID-MEDISOFT" SV="versie 1.23.25.0">8e1c4ea4-3825-48e4-bcc2b8cadfa7a897</id>
    <date>2019-11-26</date>
    <time>09:00:00</time>
    <sender>
        <hcparty>
            <id S="ID-HCPARTY" SV="1.0">19006951001</id>
            <cd S="CD-HCPARTY" SV="1.15">persphysician</cd>
            <firstname>Donald</firstname>
            <familyname>Duck</familyname>
        </hcparty>
        <hcparty>
            <cd S="CD-HCPARTY" SV="1.15">application</cd>
            <name>MySoftware</name>
            <telecom>
                <cd S="CD-ADDRESS" SV="1.1">work</cd>
                <cd S="CD-TELECOM" SV="1.0">phone</cd>
                <telecomnumber>02/100.11.12</telecomnumber>
            </telecom>
            <telecom>
```

```
                <cd S="CD-ADDRESS" SV="1.1">work</cd>
                <cd S="CD-TELECOM" SV="1.0">email</cd>
                <telecomnumber>tom@mysoftware.com</telecomnumber>
            </telecom>
        </hcparty>
    </sender>
    <recipient>
        <hcparty>
            <id S="ID-HCPARTY" SV="1.0">RECIPE</id>
            <cd S="CD-HCPARTY" SV="1.15">orgpublichealth</cd>
            <name>Recip-e</name>
        </hcparty>
    </recipient>
    <externalsource>
        <source>
            <cd S="CD-EXTERNALSOURCE" SV="1.0">samv2</cd>
            <version>E20200115</version>
        </source>
    </externalsource>
</header>
```

3.3 Folder

Each prescription should contain exactly 1 folder. This folder should contain:

- Exactly 1 id element, with S attribute ‘ID-KMEHR’ and with value ‘1’
- Exactly 1 patient. For the patient, the following information is mandatory:
    - id: S attribute is ‘ID-PATIENT’ and value should contain de INSZ/NISS number of the patient (11 digits)
    - firstname and familyname
    - birthdate
    - sex
- Exactly 1 transaction

```
<folder>
    <id S="ID-KMEHR" SV="1.0">1</id>
    <patient>
        <id S="ID-PATIENT" SV="1.0">76020727360</id>
        <firstname>Fred</firstname>
        <familyname>Flintstone</familyname>
        <birthdate>
            <date>1976-02-07</date>
        </birthdate>
        <sex>
            <cd S="CD-SEX" SV="1.1">male</cd>
        </sex>
    </patient>
    <transaction>
    …
    </transaction>
</folder>
```

3.4 Transaction

The transaction should contain:

- Exactly 1 id element, with S attribute ‘ID-KMEHR’ and with value ‘1’
- Exactly 1 cd element, with S attribute ‘CD-TRANSACTION’ and with value ‘pharmaceuticalprescription’
- Date and time: these are the legal date and time of the prescription. This date and time will be used to determine delivery and/or reimbursement conditions.
- Exactly 1 author: this is the person who takes legal responsibility about the content present in the prescription. The following author information should be present:
    - 1 hcparty id element stating the NIHII-number of the prescriber (numeric, 11 positions)
    - 1 hcparty cd element stating the prescriber’s qualification (either 'persphysician', 'persmidwife' or 'persdentist')
    - The author’s name (or combination firstname + familyname)
    - Contactinformation (address + telephone number)
- The elements ‘iscomplete’ and ‘isvalidated’, both with a value ‘true’
- Exactly 1 Heading
- The element ‘expirationdate’ is used to indicate the final day of validity. This element is mandatory and must contain a date that is comprised between the ‘transaction date’ and ‘transaction date’ + 1 year – 1 day. After this date, recip-e will change the status of the prescription to “expired’, so that the content of the prescription is no longer accessible. When the prescriber does not indicate a specific expiration date, then the default value: “transaction day + 3 months – 1 day” must be filled in here.
  Attention: this date must be identical to the expiration date present in the recip-e header, as well as the date (*Einddatum van de uitvoerbaarheid - Date de fin pour l’exécution*) mentioned on the paper proof (see page **Fout! Bladwijzer niet gedefinieerd.**).

```
<transaction>
    <id S="ID-KMEHR" SV="1.0">1</id>
    <cd S="CD-TRANSACTION" SV="1.13">pharmaceuticalprescription</cd>
    <date>2019-11-26</date>
    <time>09:00:00</time>
    <author>
        <hcparty>
            <id S="ID-HCPARTY" SV="1.0">19006951001</id>
            <cd S="CD-HCPARTY" SV="1.15">persphysician</cd>
            <name>Dr. Duck Donald</name>
            <address>
                <cd S="CD-ADDRESS" SV="1.1">work</cd>
                <country>
                    <cd S="CD-FED-COUNTRY" SV="1.2">be</cd>
                </country>
                <zip>1000</zip>
                <city>Brussel</city>
                <street>Grote Markt</street>
                <housenumber>7</housenumber>
            </address>
            <telecom>
                <cd S="CD-ADDRESS" SV="1.1">work</cd>
                <cd S="CD-TELECOM" SV="1.0">phone</cd>
                <telecomnumber>02/221.21.21</telecomnumber>
            </telecom>
        </hcparty>
    </author>
    <iscomplete>true</iscomplete>
```

```
<isvalidated>true</isvalidated>
<expirationdate>2020-02-25</expirationdate>
```

3.5 Heading

The Heading should contain:

- Exactly 1 id element, with S attribute ‘ID-KMEHR’ and with value ‘1’
- Exactly 1 cd element, with S attribute ‘CD-HEADING’ and value ‘prescription’
- Minimum 1 item and maximum 10 items. Prescriber software should pay particular attention to the fact that the number of drugs in the electronic prescription matches exactly the number of drugs present on a single “paper proof of electronic prescription”

```
<heading>
    <id S="ID-KMEHR" SV="1.0">1</id>
    <cd S="CD-HEADING" SV="1.2">prescription</cd>
    <item>
    …
    </item>
</heading>
```

3.6 Item(s)

Each item should contain:

- Exactly 1 id element, with S attribute ‘ID-KMEHR’ and with increasing value for every item, starting from ‘1’
- Exactly 1 cd element, with S attribute ‘CD-ITEM’ and value ‘medication’
- 1 or 2 content elements (see further for specifications)
- Beginmoment element: by default, this is the date of the prescription (date present under the transaction element). This element can be used to specify a future onset of the treatment at a specific date when desired by the prescriber.
- Lifecycle element: should contain 1 cd with S attribute ‘CD-LIFECYCLE’ and value ‘prescribed’
- The quantity element describes the number of packages/preparations to be delivered. The quantity element is conditionally mandatory: if the content element contains a ‘medicinalproduct’ or ‘compoundprescription’, quantity should be specified. In contrast, when the content element contains a ‘substanceproduct’, quantity is optional (see further).
- Posology element, mentioning the desired posology solely through its text element. The text should be identical to the posology as printed on the “paper proof of electronic prescription” (see page **Fout! Bladwijzer niet gedefinieerd.**).

Example (see also recipePP-1.28-example4.xml for a prescription containing multiple items):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <medicinalproduct>
                <intendedcd S="CD-DRUG-CNK" SV="LOCALDB">0318717</intendedcd>
                <intendedname>Adalat tabl. verl. afgifte Oros 28x 30 mg</intendedname>
            </medicinalproduct>
        </content>
        <content>
            <cd SV="1.0" S="LOCAL"
SL="SAMPROOF">XKpHXh08JVxwIO8Hmg8LT7zYAyMmN2s80JahsDn2yps=</cd>
        </content>
        <beginmoment>
            <date>2019-11-26</date>
        </beginmoment>
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
        <quantity>
            <decimal>1</decimal>
        </quantity>
        <frequency>
            <periodicity>
                <cd S="CD-PERIODICITY" SV="1.1">D</cd>
            </periodicity>
        </frequency>
        <posology>
            <text L="nl">1 tablet per dag, 's morgens</text>
        </posology>
        <regimen>
            <daytime>
                <dayperiod>
                    <cd S="CD-DAYPERIOD" SV="1.2">morning</cd>
                </dayperiod>
            </daytime>
            <quantity>
                <decimal>1</decimal>
                <unit>
                    <cd S="CD-ADMINISTRATIONUNIT" SV="1.3">00005</cd>
                </unit>
            </quantity>
        </regimen>
    </item>
    <item>
        <id S="ID-KMEHR" SV="1.0">2</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <medicinalproduct>
                <intendedcd S="CD-DRUG-CNK" SV="LOCALDB">0000000</intendedcd>
                <intendedname>La Roche Posay Cicaplast Balsem 100 ml</intendedname>
            </medicinalproduct>
        </content>
        <beginmoment>
            <date>2019-11-26</date>
        </beginmoment>
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
        <quantity>
            <decimal>1</decimal>
        </quantity>
        <frequency>
            <periodicity>
                <cd S="CD-PERIODICITY" SV="1.1">D</cd>
            </periodicity>
```

```
        </frequency>
        <posology>
            <text L="nl">2 x daags aanbrengen ('s ochtends en bij het slapengaan)</text>
        </posology>
        <regimen>
            <daytime>
                <dayperiod>
                    <cd S="CD-DAYPERIOD" SV="1.2">morning</cd>
                </dayperiod>
            </daytime>
            <quantity>
                <decimal>1</decimal>
            </quantity>
            <daytime>
                <dayperiod>
                    <cd S="CD-DAYPERIOD" SV="1.2">thehourofsleep</cd>
                </dayperiod>
            </daytime>
            <quantity>
                <decimal>1</decimal>
            </quantity>
        </regimen>
    </item>
```

The following elements are optional:

- **endmoment**: Only to be used when a prescriber deliberately wants to indicate the enddate of a treatment. Do not use automatic calculation of a theoretical endmoment based on a package size. In case the endmoment is present, the “posology” element should contain a textual description of the enddate.

Example: (recipePP-1.28-example6.xml):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <medicinalproduct>
                <intendedcd S="CD-DRUG-CNK" SV="LOCALDB">0035717</intendedcd>
                <intendedname>Dermovate crème 30g 0,5 mg/1 g</intendedname>
            </medicinalproduct>
        </content><content><cd SV="1.0" S="LOCAL"
SL="SAMPROOF">zVP64Bf9QccO30AoAAf4gM3Jd3r6p7aDba3kEZX8jnc=</cd></content>
        <beginmoment>
            <date>2019-11-26</date>
        </beginmoment>
        <endmoment>
            <date>2019-12-03</date>
        </endmoment>
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
        <temporality>
            <cd S="CD-TEMPORALITY" SV="1.0">acute</cd>
        </temporality>
        <quantity>
            <decimal>1</decimal>
        </quantity>
        <frequency>
            <periodicity>
                <cd S="CD-PERIODICITY" SV="1.1">D</cd>
            </periodicity>
```

```
        </frequency>
        <posology>
            <text L="fr">appliquer 2 fois par jour jusqu'au 3 décembre 2019</text>
        </posology>
        <regimen>
            <daytime>
                <dayperiod>
                    <cd S="CD-DAYPERIOD" SV="1.2">morning</cd>
                </dayperiod>
            </daytime>
            <quantity>
                <decimal>1</decimal>
            </quantity>
            <daytime>
                <dayperiod>
                    <cd S="CD-DAYPERIOD" SV="1.2">thehourofsleep</cd>
                </dayperiod>
            </daytime>
            <quantity>
                <decimal>1</decimal>
            </quantity>
        </regimen>
    </item>
```

- **temporality**: can be used to indicate the kind of treatment (acute, subacute, chronic, …)

  Example: (recipePP-1.28-example6.xml):

```
    <temporality>
        <cd S="CD-TEMPORALITY" SV="1.0">acute</cd>
    </temporality>
```

- **frequency**: Should only occur in combination with the 'regimen' element. It can be used to indicate that the treatment scheme has a cyclic pattern (see also the "Safe Medication Scheme cookbook"). The combined information in the frequency and regimen elements should always be translated into a textual posology, exactly as it appears on the "paper proof of electronic prescription".

  Example: (see also recipePP-1.28-example7.xml):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <medicinalproduct>
                <intendedcd S="CD-DRUG-CNK" SV="LOCALDB">2312577</intendedcd>
                <intendedname>Moxonidine Sandoz filmomh. tabl. 100 x 0,4 mg</intendedname>
            </medicinalproduct>
        </content>
        <content>
            <cd SV="1.0" S="LOCAL"
SL="SAMPROOF">GMyLya6o7JNrbKokvJCEzqU9XX77QU5fHmiXxa28Tks=</cd>
        </content>
        <beginmoment>
            <date>2019-11-26</date>
        </beginmoment>
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
```

```
        <temporality>
            <cd S="CD-TEMPORALITY" SV="1.0">chronic</cd>
        </temporality>
        <quantity>
            <decimal>1</decimal>
        </quantity>
        <frequency>
            <periodicity>
                <cd S="CD-PERIODICITY" SV="1.1">D</cd>
            </periodicity>
        </frequency>
        <posology>
            <text L="fr">1 comprimé par jour, le matin</text>
        </posology>
        <regimen>
            <daytime>
                <dayperiod>
                    <cd S="CD-DAYPERIOD" SV="1.2">morning</cd>
                </dayperiod>
            </daytime>
            <quantity>
                <decimal>1</decimal>
                <unit>
                    <cd S="CD-ADMINISTRATIONUNIT" SV="1.3">00005</cd>
                </unit>
            </quantity>
        </regimen>
        <route>
            <cd SV="2.0" S="CD-DRUG-ROUTE">00060</cd>
        </route>
        <instructionforpatient L="nl">Inslikken en doorspoelen met een glas water</instructionforpatient>
    </item>
```

- **duration**: can be used to indicate the duration of a treatment (without having to specify a specific enddate, cfr endmoment element). In case of a substance prescription (INN), this element is particularly useful to meet NIHDI directives, that allow the pharmacist to deliver multiple products based on single prescription when prescribed as INN and when treatment duration and posology are specified. (limited to 3 months). See article 123 of the KB/AR 01/02/2018 available at https://www.riziv.fgov.be/SiteCollectionDocuments/farmaceutische_specialiteiten_KB_20180201.pdf for more information).
  The information contained in the duration element should always be translated into a textual posology, exactly as it appears on the “paper proof of electronic prescription”.
  The element endmoment and duration cannot appear together.

  Example 1 (medicinalproduct) (see also recipePP-1.28-example9.xml):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <medicinalproduct>
                <intendedcd S="CD-DRUG-CNK" SV="LOCALDB">0867556</intendedcd>
                <intendedname>Brufen filmomh. tabl. Forte 30x 600mg</intendedname>
            </medicinalproduct>
        </content><content><cd SV="1.0" S="LOCAL"
SL="SAMPROOF">Wi4cKv9BhTcNBIzfOgEvVxHhRAHt08jOHuATsv4R4ZC=</cd></content>
        <beginmoment>
            <date>2019-11-26</date>
        </beginmoment>
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
```

```
        <temporality>
            <cd S="CD-TEMPORALITY" SV="1.0">acute</cd>
        </temporality>
        <quantity>
            <decimal>1</decimal>
        </quantity>
        <frequency>
            <periodicity>
                <cd S="CD-PERIODICITY" SV="1.1">D</cd>
            </periodicity>
        </frequency>
        <duration>
            <decimal>5</decimal>
            <unit>
                <cd S="CD-TIMEUNIT" SV="2.1">d</cd>
            </unit>
        </duration>
        <posology>
            <text L="nl">3 tabletten per dag, gedurende 5 dagen</text>
        </posology>
        <regimen>
            …
        </regimen>
    </item>
```

Example 2 (substanceproduct - INN) (see also recipePP-1.28-example8.xml):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <substanceproduct>
                <intendedcd SV="LOCALDB" S="CD-VMPGROUP">0003863</intendedcd>
                <intendedname>bisoprolol oraal 10 mg [CAVE deelb.]</intendedname>
            </substanceproduct>
        </content>
        <content>
            <cd SV="1.0" S="LOCAL"
SL="SAMPROOF">N0pUN04ubFBClLcUhjBOmCZMfoudrQFJaideKlLFqk7=</cd>
        </content>
        <beginmoment>
            <date>2019-11-26</date>
        </beginmoment>
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
        <temporality>
            <cd S="CD-TEMPORALITY" SV="1.0">chronic</cd>
        </temporality>
        <frequency>
            <periodicity>
                <cd S="CD-PERIODICITY" SV="1.1">D</cd>
            </periodicity>
        </frequency>
        <duration>
            <decimal>90</decimal>
            <unit>
                <cd S="CD-TIMEUNIT" SV="2.1">d</cd>
            </unit>
        </duration>
        <posology>
            <text L="nl">1 tablet per dag tijdens ontbijt, therapie voor 90 dagen</text>
        </posology>
        <regimen>
            …
        </regimen>
        <route>
```

```
            <cd SV="2.0" S="CD-DRUG-ROUTE">00060</cd>
        </route>
    </item>
```

- **regimen:** allows to transfer a coded posology, next to the posology text element. The “Safe medication scheme” rules are applied (https://www.ehealth.fgov.be/standards/kmehr/en/data/file/view/AWW0FZ8CRwIvE61VS-5O?name=Safe_Cookbook_Medicatieschema_v5.6_EN.pdf).

Example: (see also recipePP-1.28-example10.xml):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <medicinalproduct>
                <intendedcd SV="WSSAMv2" S="CD-DRUG-CNK">1560929</intendedcd>
                <intendedname>Sotalol Mylan tabl. (deelb.) 56x 160 mg</intendedname>
            </medicinalproduct>
        </content>
        <content>
            <cd SV="1.0" S="LOCAL"
SL="SAMPROOF">DjzkgzIl7nuc3wAamtauVvd34hDHJImHJroDfeKpOEF=</cd>
        </content>
        <beginmoment>
            <date>2019-11-26</date>
        </beginmoment>
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
        <temporality>
            <cd S="CD-TEMPORALITY" SV="1.0">chronic</cd>
        </temporality>
        <quantity>
            <decimal>1</decimal>
        </quantity>
        <frequency>
            <periodicity>
                <cd S="CD-PERIODICITY" SV="1.1">D</cd>
            </periodicity>
        </frequency>
        <posology>
            <text L="nl">Dagelijks: halve tablet voor ontbijt, halve tablet voor avondmaal</text>
        </posology>
        <regimen>
            <daytime>
                <dayperiod>
                    <cd S="CD-DAYPERIOD" SV="1.2">beforebreakfast</cd>
                </dayperiod>
            </daytime>
            <quantity>
                <decimal>0.5</decimal>
                <unit>
                    <cd S="CD-ADMINISTRATIONUNIT" SV="1.3">00005</cd>
                </unit>
            </quantity>
            <daytime>
                <dayperiod>
                    <cd S="CD-DAYPERIOD" SV="1.2">beforedinner</cd>
                </dayperiod>
            </daytime>
            <quantity>
                <decimal>0.5</decimal>
            </quantity>
        </regimen>
```

```
        <route>
            <cd SV="2.0" S="CD-DRUG-ROUTE">00060</cd>
        </route>
        <instructionforpatient L="nl">Inslikken en doorspoelen met een glas water</instructionforpatient>
    </item>
```

- **deliverydate:** as of 01/11/2019 this element is no longer allowed. Please refer to the element “beginmoment” when a delayed onset of a treatment is required.

- **renewal:** under certain legislative conditions, a prescriber is allowed to indicate that a prescription can be renewed for a limited number of times. The prescriber has also the option to indicate a period between (each of) the renewal(s).

Example (3 times renewable, after 3 months, see also recipePP-1.28-example12.xml):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <medicinalproduct>
                <intendedcd S="CD-DRUG-CNK" SV="LOCALDB">1596915</intendedcd>
                <intendedname>Yasmin 0,03/3 filmomh. tabl. 3x21</intendedname>
            </medicinalproduct>
        </content>
        <content>
            <cd SV="1.0" S="LOCAL"
SL="SAMPROOF">eKr1DHyxu0xHxuVThz7N7nAh88D28kOedTPU8sQnunf=</cd>
        </content>
        <beginmoment>
            <date>2019-11-26</date>
        </beginmoment>
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
        <quantity>
            <decimal>1</decimal>
        </quantity>
        <frequency>
            <periodicity>
                <cd S="CD-PERIODICITY" SV="1.1">D</cd>
            </periodicity>
        </frequency>
        <posology>
            <text L="nl">1 tablet per dag, voor het slapengaan</text>
        </posology>
        <regimen>
            …
        </regimen>
        <renewal>
            <decimal>3</decimal>
            <duration>
                <decimal>3</decimal>
                <unit>
                    <cd S="CD-TIMEUNIT" SV="2.1">mo</cd>
                </unit>
            </duration>
        </renewal>
    </item>
```

- **route:** can be used to specify the route of administration. Should be used for products for which multiple routes of administration are possible.

Example (route of administration is “ear”, see also recipePP-1.28-example13.xml):

```
<item>
    <id S="ID-KMEHR" SV="1.0">1</id>
    <cd S="CD-ITEM" SV="1.11">medication</cd>
    <content>
        <medicinalproduct>
            <intendedcd S="CD-DRUG-CNK" SV="LOCALDB">0132407</intendedcd>
            <intendedname>Terra-Cortril+Polymyxine B 10/5/10000 zalf 3,5g</intendedname>
        </medicinalproduct>
    </content>
    <content>
        <cd SV="1.0" S="LOCAL"
SL="SAMPROOF">elPClBYMvGytm0bLVfHMdiib9mldQKeX8ObmELLVlX4=</cd>
    </content>
    <beginmoment>
        <date>2019-11-26</date>
    </beginmoment>
    <lifecycle>
        <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
    </lifecycle>
    <quantity>
        <decimal>1</decimal>
    </quantity>
    <frequency>
        <periodicity>
            <cd S="CD-PERIODICITY" SV="1.1">D</cd>
        </periodicity>
    </frequency>
    <posology>
        <text L="nl">'s ochtends en 's avonds aanbrengen in het oor</text>
    </posology>
    <regimen>
        …
    </regimen>
    <route>
        <cd S="CD-DRUG-ROUTE" SV="2.0">00001</cd>
    </route>
</item>
```

- **instructionforpatient:** can be used to give detailed patient instructions regarding correct usage of the prescribed product.

Example: (see also recipePP-1.28-example10.xml):

```
<item>
    <id S="ID-KMEHR" SV="1.0">1</id>
    <cd S="CD-ITEM" SV="1.11">medication</cd>
    <content>
        <medicinalproduct>
            <intendedcd SV="WSSAMv2" S="CD-DRUG-CNK">1560929</intendedcd>
            <intendedname>Sotalol Mylan tabl. (deelb.) 56x 160 mg</intendedname>
        </medicinalproduct>
    </content>
    <content>
        <cd SV="1.0" S="LOCAL"
SL="SAMPROOF">DjzkgzIl7nuc3wAamtauVvd34hDHJImHJroDfeKpOEF=</cd>
    </content>
    <beginmoment>
        <date>2019-11-26</date>
    </beginmoment>
```

```
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
        <temporality>
            <cd S="CD-TEMPORALITY" SV="1.0">chronic</cd>
        </temporality>
        <quantity>
            <decimal>1</decimal>
        </quantity>
        <frequency>
            <periodicity>
                <cd S="CD-PERIODICITY" SV="1.1">D</cd>
            </periodicity>
        </frequency>
        <posology>
            <text L="nl">Dagelijks: halve tablet voor ontbijt, halve tablet voor avondmaal</text>
        </posology>
        <regimen>
            …
        </regimen>
        <route>
            <cd SV="2.0" S="CD-DRUG-ROUTE">00060</cd>
        </route>
        <instructionforpatient L="nl">Inslikken en doorspoelen met een glas water</instructionforpatient>
    </item>
```

- **instructionforreimbursement:** optional element, but should be used for every product that necessitates a prescriber's annotation in order to be reimbursed. Below a list of possible reimbursement instructions. At least all elements from this list should be available for the prescriber to choose from.

FR	**NL**
Tiers-payant applicable	Derdebetalersregeling van toepassing
1ère dose	1ste toediening
2ème dose + [date de la 1ère dose]	2de toediening + [datum 1ste toediening]
3ème dose + [date de la 1ère et 2ème dose]	3de toediening + [datum 1ste en 2de toediening]
Trajet de soins insuffisance rénale chronique	Zorgtraject chronische nierinsufficiëntie
Trajet de soins diabète	Zorgtraject diabetes
Convention diabète	Diabetesconventie
Non remboursable	Niet-vergoedbaar
Convention diabète	Diabetesconventie
Trajet de démarrage diabète type 2	Opstarttraject diabetes type 2

Example: (see also recipePP-1.28-example14.xml):

```
<item>
<id S="ID-KMEHR" SV="1.0">1</id>
<cd S="CD-ITEM" SV="1.11">medication</cd>
<content>
    <medicinalproduct>
        <intendedcd S="CD-DRUG-CNK" SV="LOCALDB">2115517</intendedcd>
        <intendedname>Belsar filmomh. tabl. 98x 20 mg</intendedname>
    </medicinalproduct>
</content>
<content>
    <cd SV="1.0" S="LOCAL"
SL="SAMPROOF">MBCXMEu0R7Tx0u6n2ATnOWIvBC1CKU8UoTkaoGNcvav=</cd>
</content>
<beginmoment>
    <date>2019-11-26</date>
</beginmoment>
<lifecycle>
    <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
</lifecycle>
<quantity>
    <decimal>1</decimal>
</quantity>
<frequency>
    <periodicity>
        <cd S="CD-PERIODICITY" SV="1.1">D</cd>
    </periodicity>
</frequency>
<posology>
    <text L="fr">1 par jour le matin</text>
</posology>
<regimen>
    <daytime>
        <dayperiod>
            <cd S="CD-DAYPERIOD" SV="1.2">morning</cd>
        </dayperiod>
    </daytime>
    <quantity>
        <decimal>1</decimal>
        <unit>
            <cd S="CD-ADMINISTRATIONUNIT" SV="1.3">00005</cd>
        </unit>
    </quantity>
</regimen>
<instructionforreimbursement L="fr">Trajet de soins insuffisance rénale chronique</instructionforreimbursement>
</item>
```

- **issubstitutionallowed:** optional element. Should only be used by the prescriber in case he wants to specify a “therapeutical objection” in the context of the NIHDI directive available at http://www.inami.fgov.be/nl/themas/kost-terugbetaling/door-ziekenfonds/geneesmiddel-gezondheidsproduct/geneesmiddel-voorschrijven/Paginas/antibiotica-antimycotica-regels-voorschrijver.aspx#.WItah308Z7E
or
http://www.inami.fgov.be/fr/themes/cout-remboursement/par-mutualite/medicament-produits-sante/prescrire-medicaments/Pages/antibiotiques-antimycosiques-regles-prescripteurs.aspx#.WIta_n08Z7E concerning prescription with antibiotics and antimycotics. The reason for the therapeutical objection against substitution needs to be logged in the EPD.

Example: (see also recipePP-1.28-example15.xml):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <medicinalproduct>
                <intendedcd S="CD-DRUG-CNK" SV="LOCALDB">0029025</intendedcd>
                <intendedname>Augmentin 500/125 filmomh. tabl. (deelb.) 16x</intendedname>
            </medicinalproduct>
        </content>
        <content>
            <cd SV="1.0" S="LOCAL"
SL="SAMPROOF">0LZZY4TNYe2FDVzU2QJVobJdLd0xrwzcccQneEyazKK=</cd>
        </content>
        <beginmoment>
            <date>2019-11-26</date>
        </beginmoment>
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
        <quantity>
            <decimal>1</decimal>
        </quantity>
        <frequency>
            <periodicity>
                <cd S="CD-PERIODICITY" SV="1.1">D</cd>
            </periodicity>
        </frequency>
        <duration>
            <decimal>5</decimal>
            <unit>
                <cd S="CD-TIMEUNIT" SV="2.1">d</cd>
            </unit>
        </duration>
        <posology>
            <text L="nl">3 tabletten per dag, gedurende 5 dagen</text>
        </posology>
        <regimen>
            …
        </regimen>
        <issubstitutionallowed>false</issubstitutionallowed>
    </item>
```

3.7 Content [1]

The first content element should contain either 1 medicinalproduct element, 1 substanceproduct element or 1 compoundprescription element. Below the different possibilities are detailed.

3.7.1 Medicinalproduct

3.7.1.1 medicinal product with CNK-code

Whenever possible, prescribed products should be identified by their CNK code (using the S attribute ‘CD-DRUG-CNK’ for the intendedcd element). No other coding-systems are allowed.

A CNK-code is a 7-digit code. It cannot contain any other characters. A CNK-code should always be present as exactly 7 digits. Leading zeros should be added when necessary (eg. use 0263350 instead of 263350 for the product Ticlid 60 x 250 mg).

In order to prevent possible incorrect interpretation of the values of the intendedcd SV attribute, only the following values are allowed: WSSAMv2 (in case the webservice SAMv2 was used for retrieval of the CNK-code) or LOCALDB (all other cases).

When prescribing a product present in SAMv2, the 'intendedname' element should contain the SAMv2 AMPP PrescriptionNameFamhp (either Dutch, French, German or English) when using the downloaded SAMv2 or the SAMv2 AMPP PrescriptionName when using the online DICS service.

Example (see also recipePP-1.28-example1.xml):

```
<item>
    <id S="ID-KMEHR" SV="1.0">1</id>
    <cd S="CD-ITEM" SV="1.11">medication</cd>
    <content>
        <medicinalproduct>
            <intendedcd S="CD-DRUG-CNK" SV="LOCALDB">0318717</intendedcd>
            <intendedname>Adalat tabl. verl. afgifte Oros 28x 30 mg</intendedname>
        </medicinalproduct>
    </content>
    …
</item>
```

3.7.1.2 medicinal product without CNK-code

Exceptionally, in case of a product that has no CNK code, it is possible to prescribe a medicinal product without specifying a CNK-code. In that case, the value of 'intendedcd' should equal '0000000' and by definition, the value of its S attribute equals 'LOCALDB'.

Prescriber should take care that the information present in the intendedname element permits the pharmacist to unambiguously identify the prescribed product.

Example 1: cosmetic product (see also recipePP-1.28-example2.xml)

```
<item>
    <id S="ID-KMEHR" SV="1.0">1</id>
    <cd S="CD-ITEM" SV="1.11">medication</cd>
    <content>
        <medicinalproduct>
            <intendedcd S="CD-DRUG-CNK" SV="LOCALDB">0000000</intendedcd>
            <intendedname>La Roche Posay Cicaplast Balsem 100 ml</intendedname>
        </medicinalproduct>
    </content>
    …
</item>
```

Example 2: oxygen (see also recipePP-1.28-example3.xml)

```
<item>
    <id S="ID-KMEHR" SV="1.0">1</id>
    <cd S="CD-ITEM" SV="1.11">medication</cd>
```

```
        <content>
            <medicinalproduct>
                <intendedcd S="CD-DRUG-CNK" SV="LOCALDB">0000000</intendedcd>
                <intendedname>Traitement oxygène gazeuse pour 1 mois</intendedname>
            </medicinalproduct>
        </content>
        …
    </item>
```

3.7.2 Substanceproduct

3.7.2.1 Substanceproduct with cluster code

INN-cluster should be identified by its cluster code and name as present in SAMv2 (VMPGroupCode and VMPGroupName, do not confuse with VMPCode and VMPName!). These clusters need to be specified using the CD-VMPGROUP value of the intended ‘S’ attribute.

Example: <intendedcd SV="LOCALDB" S="CD-VMPGROUP">0000174</intendedcd>

In order for a pharmacist to correctly execute an INN prescription, the prescriber must specify either desired package size in the cluster name, or make use of the duration element and posology, since INN-clusters don’t take package size into account. When pharmacist is unable to determine a package size, he is forced to deliver the smallest publicly available package, which not necessarily meets prescriber’s intention.

Example 1 (package size specified in intendedname element, see also recipePP-1.28-example16.xml):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <substanceproduct>
                <intendedcd SV="LOCALDB" S="CD-VMPGROUP">0003863</intendedcd>
                <intendedname>bisoprolol oraal 10 mg [CAVE deelb.], 90 tabletten</intendedname>
            </substanceproduct>
        </content>
        …
    </item>
```

Example 2 (specification of duration and posology, see also recipePP-1.28-example8.xml):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <substanceproduct>
                <intendedcd SV="LOCALDB" S="CD-VMPGROUP">0003863</intendedcd>
                <intendedname>bisoprolol oraal 10 mg [CAVE deelb.]</intendedname>
            </substanceproduct>
        </content>
```

```
        <content>
            <cd SV="1.0" S="LOCAL"
SL="SAMPROOF">N0pUN04ubFBClLcUhjBOmCZMfoudrQFJaideKlLFqk7=</cd>
        </content>
        <beginmoment>
            <date>2019-11-26</date>
        </beginmoment>
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
        <temporality>
            <cd S="CD-TEMPORALITY" SV="1.0">chronic</cd>
        </temporality>
        <frequency>
            <periodicity>
                <cd S="CD-PERIODICITY" SV="1.1">D</cd>
            </periodicity>
        </frequency>
        <duration>
            <decimal>90</decimal>
            <unit>
                <cd S="CD-TIMEUNIT" SV="2.1">d</cd>
            </unit>
        </duration>
        <posology>
            <text L="nl">1 tablet per dag tijdens ontbijt, therapie voor 90 dagen</text>
        </posology>
        <regimen>
            …
        </regimen>
        <route>
            <cd SV="2.0" S="CD-DRUG-ROUTE">00060</cd>
        </route>
    </item>
```

3.7.2.2 Substanceproduct without cluster code

Whilst strongly discouraged, it is possible to create an INN prescription without specifying a Cluster CNK-code. In that case, the value of ‘intendedcd’ should equal ‘0000000’ and by definition, the value of its S attribute equals ‘LOCALDB’.

In order for a pharmacist to correctly execute an INN prescription, the prescriber must specify either desired package size in the cluster name, or make use of the duration element and posology. When pharmacist is unable to determine a package size, he is forced to deliver the smallest publicly available package, which not necessarily meets prescriber’s intention.

Example (see also recipePP-1.28-example17.xml):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <substanceproduct>
                <intendedcd SV="LOCALDB" S="CD-VMPGROUP">0000000</intendedcd>
                <intendedname>bisoprolol oraal 10 mg [CAVE deelb.]</intendedname>
            </substanceproduct>
        </content>
        <beginmoment>
            <date>2019-11-26</date>
        </beginmoment>
```

```
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
        <temporality>
            <cd S="CD-TEMPORALITY" SV="1.0">chronic</cd>
        </temporality>
        <frequency>
            <periodicity>
                <cd S="CD-PERIODICITY" SV="1.1">D</cd>
            </periodicity>
        </frequency>
        <duration>
            <decimal>90</decimal>
            <unit>
                <cd S="CD-TIMEUNIT" SV="2.1">d</cd>
            </unit>
        </duration>
        <posology>
            <text L="nl">1 tablet per dag tijdens ontbijt, therapie voor 90 dagen</text>
        </posology>
        <regimen>
            …
        </regimen>
        <route>
            <cd SV="2.0" S="CD-DRUG-ROUTE">00060</cd>
        </route>
    </item>
```

3.7.3 Compoundprescription

For prescriptions using “compoundprescrption” either text or coded substances are allowed. Coded substances can be found e.g. in SAMv2, on the NIHDI website (reimbursed substances, see http://www.inami.fgov.be/SiteCollectionDocuments/magistrale_bereidingen_referentiebestand.xlsx and http://www.inami.fgov.be/SiteCollectionDocuments/magistrale_bereidingen_detailregistratie_referentiebestand.pdf) or through MFK-QMP (database of FTM-TMF preparations available through webservices, contact via http://www.mfk-qmp.be/nl/content/contact).

3.7.3.1 Compoundprescription as text

The magistral preparation is entirely present as text within the ‘magistraltext’ element.

Example (see also recipePP-1.28-example5.xml):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <compoundprescription>
                <magistraltext L="nl">
                    R/   Ranitidine.HCL                        1.675g
                         Mononatriumfosfaat dihydraat          0.3g
                         Dinatriumfosfaat dihydraat            1.3g
                         Water                                 30g
                         Sterke oranjeschiltinctuur            qs
                         Geconserveerde enkelvoudige siroop    ad 100ml

                         dt 300 ml
```

```
                </magistraltext>
            </compoundprescription>
        </content>
        …
    </item>
```

3.7.3.2 Compoundprescription using coded substances/formulas

Example 1 (presence of coded TMF-FTM formula, see also recipePP-1.28-example18.xml):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <compoundprescription>
                <formularyreference>
                    <cd S="CD-FORMULARY" SV="1.0">TMF2</cd>
                    <cd S="CD-FORMULARYREFERENCE" SV="1.0" L="fr" DN="ERYTHROMYCINE SOL.
HYDRO-ALC. 4% FTM2">0589028</cd>
                </formularyreference>
                <quantity>
                    <decimal>300</decimal>
                    <unit>
                        <cd S="CD-UNIT" SV="1.7">ml</cd>
                    </unit>
                </quantity>
            </compoundprescription>
        </content>
        <content>
            <cd SV="1.0" S="LOCAL"
SL="SAMPROOF">ZMhEndzFO5wxziYqc8Mb8yc8ETOZRv5IjcIElrWbg7i=</cd>
        </content>
        <beginmoment>
            <date>2019-11-26</date>
        </beginmoment>
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
        <quantity>
            <decimal>1</decimal>
        </quantity>
        <posology>
            <text L="nl">één - tot tweemaal per dag aanbrengen</text>
        </posology>
    </item>
```

Example 2 (preparation consisting of a coded substance in combination with a prepacked product, see also recipePP-1.28-example19.xml):

```
    <item>
        <id S="ID-KMEHR" SV="1.0">1</id>
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        <content>
            <compoundprescription>
                <compound>
                    <id SV="1.0" S="ID-KMEHR">1</id>
                    <medicinalproduct>
                        <intendedcd SV="LOCALDB" S="CD-DRUG-CNK">0103861</intendedcd>
                        <intendedname>Betnelan V crème 30g 1 mg/1 g</intendedname>
                    </medicinalproduct>
                    <quantity>
                        <decimal>30</decimal>
```

```
                        <unit>
                            <cd S="CD-UNIT" SV="1.7">gm</cd>
                        </unit>
                    </quantity>
                </compound>
                <compound>
                    <id SV="1.0" S="ID-KMEHR">2</id>
                    <substance>
                        <cd S="CD-SUBSTANCE-CNK" SV="1.0" L="nl" DN="GEBUF. CETOMACR. CREME
TMF2">0587089</cd>
                    </substance>
                <quantity>
                    <decimal>30</decimal>
                    <unit>
                            <cd S="CD-UNIT" SV="1.7">gm</cd>
                        </unit>
                    </quantity>
                </compound>
            </compoundprescription>
        </content>
        <beginmoment>
            <date>2019-11-26</date>
        </beginmoment>
        <lifecycle>
            <cd S="CD-LIFECYCLE" SV="1.9">prescribed</cd>
        </lifecycle>
        <quantity>
            <decimal>1</decimal>
        </quantity>
        <frequency>
            <periodicity>
                <cd S="CD-PERIODICITY" SV="1.1">D</cd>
            </periodicity>
        </frequency>
        <posology>
            <text L="fr">appliquer 2 x par jour, le matin et au coucher</text>
        </posology>
        <regimen>
            …
        </regimen>
    </item>
```

For additional examples of Compoundprescriptions using coded substances/formulas see:

recipePP-1.28-example22.xml

recipePP-1.28-example23.xml

recipePP-1.28-example24.xml

recipePP-1.28-example25.xml

recipePP-1.28-example26.xml

recipePP-1.28-example27.xml

3.8 Content [2]

The second content element is conditionally mandatory:
whenever a product (CNK-DMPP) or INN-cluster (VMPGroup) present in SAMv2 is prescribed, the corresponding SAMv2 ProductId attribute (a string of 44 characters) should be present as a cd value, using the correct SV, S and SL attributes as mentioned below:

Medicinalproduct:

```
<content>
    <medicinalproduct>
        <intendedcd S="CD-DRUG-CNK" SV="LOCALDB">0029025</intendedcd>
        <intendedname>Augmentin 500/125 filmomh. tabl. (deelb.) 16x</intendedname>
    </medicinalproduct>
</content>
<content>
    <cd SV="1.0" S="LOCAL" SL="SAMPROOF">0LZZY4TNYe2FDVzU2QJVobJdLd0xrwzcccQneEyazKK=</cd>
</content>
```

Substanceproduct:

```
<content>
    <substanceproduct>
        <intendedcd SV="LOCALDB" S="CD-VMPGROUP">0003863</intendedcd>
        <intendedname>bisoprolol oraal 10 mg [CAVE deelb.]</intendedname>
    </substanceproduct>
</content>
<content>
    <cd SV="1.0" S="LOCAL" SL="SAMPROOF">N0pUN04ubFBClLcUhjBOmCZMfoudrQFJaideKlLFqk7=</cd>
</content>
```

In case of compoundprescriptions, a second content element can be present when single substances / formulas are prescribed based on SAMv2. However, in case of multiple compounds, a second content element is not possible and hence not required.

4. Test rules

4.1 KMEHR XSD

eHealth standard KMEHR XSD version 1.28 must be used to validate the pharmaceutical prescriptions.

https://www.ehealth.fgov.be/standards/kmehr/en/page/xschema

4.2 XPATH rules

Specific XPATH rules are used to increase the quality of the pharmaceutical prescription KMEHR.

Those rules focus on 4 different area's in the KMEHR structure;

- KMEHR Header
- KMEHR Folders
- KMEHR Items
- Content

Validation rules can be found in the Prescriber SDK on the Recip-e website.

5. Processing in pharmacies

Possible standardized comments to be linked to a prescription:

Dringend Urgent
Aanpassing origineel voorschrift na telefonisch contact met voorschrijver Adaptation prescription originale après contact téléphonique avec le prescripteur
Aanpassing origineel voorschrift in kader van therapietrouw en na akkoord voorschrijver Adaptation prescription originale dans la cadre de la compliance et après accord du prescripteur
Aanpassing origineel voorschrift in overeenstemming met attest VI en na akkoord voorschrijver Adaptation prescription originale conformément à l'attestation VI et après accord du prescripteur
Aanpassing origineel voorschrift wegens ontbreken bij leverancier en na akkoord voorschrijver Adaptation prescription originale parce que non disponible chez le grossiste et après accord du prescripteur
Aanpassing origineel voorschrift wegens ontbreken bij leverancier en dringend Adaptation prescription originale parce que non disponible chez le grossiste et urgent
Vermelding "derdebetaler van toepassing" na akkoord voorschrijver Mention « tiers-payant applicable » après accord prescripteur
Vermelding "DC (diabetesconventie)" na akkoord voorschrijver Mention « CD «(convention diabète) » après accord prescripteur
Vermelding "ZTD (zorgtraject diabetes)" na akkoord voorschrijver Mention « TSD (trajet de soins diabète) » après accord prescripteur
Vermelding "ZTN (zorgtraject chronische nierinsufficiëntie" na akkoord voorschrijver Mention « TSI (trajet de soins insuffisance rénale) » après accord prescripteur
Andere (gelieve te specifiëren): Autres (veuillez préciser) :
Versie 5/10/2019 VMN