

# M. Kmehrmessage Structure

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## Introduction

A medication scheme is a kmehrmessage that consists of

- 1 transaction MS (medicationscheme),
- 0 or more transactions MSE (medicationschemeelement) and
- 0 or more transactions TS (treatmentsuspension)

The next paragraphs describe the kmehrmessage as used for Vitalink. Please refer to the Kmehr standard specification for the basic explanation, see [External Links#kmehr\\_message-overview](#).

If no Vitalink meaning is specified, the Kmehr meaning is applicable.

## Kmehrmessage element <header>

Vitalink does not require more elements than the ones that are mandatory by the Kmehr standard.

When writing to Vitalink, all the elements are generated by the eHealth technical connector, based on the used properties.

## Kmehrmessage element <folder>

### Folder element <patient>

Element	Vitalink meaning Kmehr meaning: <a href="#">External Links#kmehr_patient</a>	Kmehr	Vitalink
<i>id</i>	-	Mandatory	=
<i>firstname</i>	-	Mandatory	=
<i>familyname</i>	-	Mandatory	=
<i>birthdate</i>	-	Optional	=
<i>birthlocation</i>	-	Optional	=
<i>deathdate</i>	-	Optional	=
<i>sex</i>	-	Mandatory	=
<i>usuallanguage</i>	Vitalink: Question is pending asking what this means for Vitalink  <a href="#">VAZG-118</a> - Getting issue details... <span style="border: 1px solid #ccc; padding: 2px 5px;">STATUS</span>	Optional	=

Vitalink does not require more elements than the ones that are mandatory by the Kmehr standard.

When writing to Vitalink, all the elements are generated by the eHealth technical connector, based on the patient information given by the application.

### Folder element <transaction> "medicationscheme" (MS)

The Vitalink transaction MS contains the general information of the medication scheme.

### Kmehr parent transaction

Element	Vitalink meaning Kmehr meaning: <a href="#">External Links#kmehr_transaction</a>	Kmehr	Vitalink
<i>id</i>	For the use in storage and consultation, see <a href="#">M. Storage and Consultation</a> .	Mandatory	=
<i>cd</i>	-	Mandatory	=
<i>date</i>	For the use in storage and consultation, see <a href="#">M. Storage and Consultation</a> .	Mandatory	=
<i>time</i>	For the use in storage and consultation, see <a href="#">M. Storage and Consultation</a> .	Mandatory	=
<i>author</i>	For the use in storage and consultation, see <a href="#">M. Storage and Consultation</a> .	Mandatory	=

<i>iscomplete</i>	Kmehr: Specifies if the transaction is complete.  Vitalink: This element is not used. Since it is mandatory, Vitalink requires always the value "true".  <a href="#">VIM-147 - Getting issue details...</a> <span style="border: 1px solid #ccc; padding: 2px 5px;">STATUS</span> <a href="#">VIM-149 - Getting issue details...</a> <span style="border: 1px solid #ccc; padding: 2px 5px;">STATUS</span>	Mandatory	=
<i>isvalidated</i>	Kmehr: Specifies if the transaction is validated.  Vitalink: This element is not used. Since it is mandatory, Vitalink requires always the value "true". See <a href="#">M. Concept: Usage of &lt;isvalidated&gt;</a> for further details.	Mandatory	=
<i>item</i>	Vitalink: No item is defined within the transaction medicationscheme.	Optional	0

## Vitalink child transaction MS

Element	Vitalink meaning  <a href="#">Kmehr meaning: External Links#kmehr_transaction</a>	Kmehr	Vitalink
<i>version</i>	Kmehr: not existing  Vitalink: this is the version of the medication scheme in Vitalink. When saving a medication scheme, this version needs to be passed to Vitalink.	not existing	Mandatory

## Folder element <transaction> "medicationschemeelement" (MSE)

### Kmehr parent transaction

Element	Vitalink meaning  <a href="#">Kmehr meaning: External Links#kmehr_transaction</a>	Kmehr	Vitalink
<i>id</i>	For the use in storage and consultation, see <a href="#">M. Storage and Consultation</a> .	Mandatory	=
<i>cd</i>	-	Mandatory	=
<i>date</i>	For the use in storage and consultation, see <a href="#">M. Storage and Consultation</a> .	Mandatory	=
<i>time</i>	For the use in storage and consultation, see <a href="#">M. Storage and Consultation</a> .	Mandatory	=
<i>author</i>	For the use in storage and consultation, see <a href="#">M. Storage and Consultation</a> .	Mandatory	=
<i>iscomplete</i>	Kmehr: Specifies if the transaction is complete.  Vitalink: This element is not used. Since it is mandatory, Vitalink requires always the value "true".  <a href="#">VIM-147 - Getting issue details...</a> <span style="border: 1px solid #ccc; padding: 2px 5px;">STATUS</span> <a href="#">VIM-149 - Getting issue details...</a> <span style="border: 1px solid #ccc; padding: 2px 5px;">STATUS</span>	Mandatory	=
<i>isvalidated</i>	Kmehr: Specifies if the transaction is validated.  Vitalink: This element is not used. Since it is mandatory, Vitalink requires always the value "true". See <a href="#">M. Concept: Usage of &lt;isvalidated&gt;</a> for further details.	Mandatory	=
<i>item</i>	-	Optional	[1-*]

## Vitalink child transaction MSE

## Transaction element <item>

Each Kmehr element <item> consists of the next elements:

Element	Vitalink meaning	Kmehr	Vitalink
Kmehr meaning: External Links#kmehr_item			
<i>id</i>	Vitalink: For Vitalink, this value has no extra meaning.	Mandatory	=
<i>cd</i>	Kmehr: The type of the item. Vitalink: 1 item "medication" and 0 or more items "healthcareelement"	Mandatory	=

## Transaction element <item> "medication"

The item medication has of the following additional elements, for which the meaning is explained in the corresponding paragraph:

Element	Type	Vitalink
group of elements for medication information	Refer to corresponding paragraph.	Mandatory
<i>temporality</i>	CD-TEMPORALITY	Optional
<i>frequency</i>	CD-PERIODICITY	Optional
<i>beginmoment</i>	<date>	Mandatory
<i>endmoment</i>	<date>	Optional, not together with <i>duration</i>
<i>duration</i>	Refer to corresponding paragraph.	Optional, not together with <i>endmoment</i>
<i>regimen</i>	Refer to corresponding paragraph.	Optional, not together with <i>posology</i>
<i>posology</i>	<text>	Optional, not together with <i>regimen</i>
<i>route</i>	CD-DRUG-ROUTE	Optional
<i>instructionforpatient</i>	text	Optional
<i>instructionforoverdosing</i> (deprecated)	text	Optional

## Medication elements for medication information

Information with regard to the medication can be included in four different ways. The method that is used depends on whether:

- the medication is prescribed on product name
- the medication is prescribed on substance name ('Prescription On Substance' or POS)
- the medication needs to be identified via an EAN code
- the medication is a pharmaceutical compound

## Medication information via <medicinalproduct>

The medication is defined with the help of exactly 1 tag <medicinalproduct> in <content>.

Element	Type	Meaning	Vitalink
<i>content/medicinalproduct/intendedcd</i>	CD-DRUG-CNK		Mandatory
<i>content/medicinalproduct/intendedname</i>	text		Mandatory
<i>content/medicinalproduct/deliveredcd</i>	CD-DRUG-CNK		Optional
<i>content/medicinalproduct/deliveredname</i>	text		Optional

### Advise

Although it should be used when reading a medication, it is advised not to use the 'delivered' functionality when writing medication. When delivering another product instead of the intended one, it is better to replace the original <intendedcd> and <intendedname> by a new <intendedcd> and <intendedname>.

### Example

```
...  
<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="2010-07">0018614</intendedcd>  
            <intendedname>Alkeran filmomh. tabl. 25 x 2 mg</intendedname>  
        </medicinalproduct>  
    </content>  
    <beginmoment>  
        <date>2025-01-15</date>  
    </beginmoment>  
    ...
```

### Example with deliveredcd

```
...  
<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="1.0">0044545</intendedcd>  
            <intendedname>DAFALGAN FORTE AGR BRUIS 500MG TABL 32</intendedname>  
            <deliveredcd S="CD-DRUG-CNK" SV="1.0">1449842</deliveredcd>  
            <deliveredname>DAFALGAN FORTE AGR BRUIS 1G TABL 32</deliveredname>  
        </medicinalproduct>  
    </content>  
    <beginmoment>  
        <date>2025-01-15</date>  
    </beginmoment>  
    ...
```

## Medication information via <substanceproduct>

The medication is defined with the help of exactly 1 tag <substanceproduct> in <content>.

Element	Type	Meaning	Vitalink
content/substanceproduct/intendedcd	CD-INNCLUSTER	The CNK code of the INN Cluster of the intended substance.	Mandatory
content/substanceproduct/intendedname	text	A name for the intended substance.	Mandatory
content/substanceproduct/deliveredcd	CD-DRUG-CNK	The CNK code of the delivered product.	Optional
content/substanceproduct/deliveredname	text	A name for the delivered product.	Optional

### Advise

Although it should be used when reading a medication, it is advised not to use the delivered functionality when writing medication. When delivering a product based on the intended substance, it is better to replace the original <substanceproduct> by a new <medicinalproduct>.

### Example

```
...
<item>
    <id S="ID-KMEHR" SV="1.0">2</id>
    <cd S="CD-ITEM" SV="1.11">medication</cd>
    <content>
        <substanceproduct>
            <intendedcd S="CD-INNCLUSTER" SV="2018-08">01569</intendedcd>
            <intendedname>rosuvastatine</intendedname>
        </substanceproduct>
    </content>
    <beginmoment>
        <date>2025-01-15</date>
    </beginmoment>
    ...

```

### Example with deliveredcd

```
...
<item>
    <id S="ID-KMEHR" SV="1.0">2</id>
    <cd S="CD-ITEM" SV="1.11">medication</cd>
    <content>
        <substanceproduct>
            <intendedcd S="CD-INNCLUSTER" SV="2018-08">01569</intendedcd>
            <intendedname>rosuvastatine</intendedname>
            <deliveredcd S="CD-DRUG-CNK" SV="2018-08">3641081</deliveredcd>
            <deliveredname>Rosuvastatine Mylan filmomh. tabl. 98 x 40 mg</deliveredname>
        </substanceproduct>
    </content>
    <beginmoment>
        <date>2025-01-15</date>
    </beginmoment>
    ...

```

## Medication information via CD-EAN and <text>

The medication is defined with a CD-EAN code as <content> and a tag <text> in <item>.

Element	Type	Meaning	Vitalink
content	CD-EAN		Mandatory
text	text		Mandatory

### Example

```
...
<item>
    <id S="ID-KMEHR" SV="1.0">2</id>
    <cd S="CD-ITEM" SV="1.4">medication</cd>
    <content>
        <cd SV="external" S="CD-EAN">8426420004947</cd>
    </content>
    <text L="nl">DAFALGAN FORTE DROOG 1G TABL 50</text>
    <beginmoment>
        <date>2025-01-15</date>
    </beginmoment>
    ...

```

Note that the version of the CD-EAN table is externally defined, since it is not a proprietary Kmehr table. No Vitalink validation is done regarding that version or value passed for CD-EAN.

## Medication information via <compoundprescription> and <text>

In the current kmehr standard it is only possible to enter a pharmaceutical compound in textual form. However steps have been taken to do this in a more structured manner in a future version. When these modifications are included in kmehr Vitalink will possibly be aligned. As a placeholder for this future change, the tag <compoundprescription> is already defined. This structure is the again accompanied by another tag <text>.

Element	Type	Meaning	Vitalink
compoundprescription /magistraltext	text	A textual description of the pharmaceutical compound	Mandatory
text	text	A descriptive name of the pharmaceutical compound. <b>The following information should be included as name of the compound:</b> <ul style="list-style-type: none"> <li>• the compound number +</li> <li>• active components +</li> <li>• dose per unit or content.</li> </ul>	Mandatory

#### Example

```
...
<item>
    <id S="ID-KMEHR" SV="1.0">2</id>
    <cd S="CD-ITEM" SV="1.4">medication</cd>
    <content>
        <compoundprescription L="nl">
            <magistraltext L="nl">R/ Aluminiumchloride hexahydraat 15 g + Isopropylalcohol 78 g
+ Gezuiverd water q.s. ad 100 g T</magistraltext>
        </compoundprescription>
    </content>
    <text L="nl">Aluminiumchloride transpiratieremmende hydroalcoholische oplossing 15 % TMF</text>
    <beginmoment>
        <date>2025-01-15</date>
    </beginmoment>
    ...

```

## Medication element <temporality>

This element specifies the chronicity of the treatment. Please refer to M. Concept: Temporality "Ad hoc" for details of usage.

## Medication element <frequency>

This element specifies the frequency of the treatment. Please refer to M. Combined use of frequency and day and M. Concept: Hourly frequency and posology for details of usage.

## Medication element <beginmoment>

This is the date from when the medication can at the earliest taken.

In the next example, the medication can be taken at the earliest starting from the 1th of september 2030:

#### Example

```
...
<transaction>
    <id S="ID-KMEHR" SV="1.0">46</id>
    ...
    <cd S="CD-TRANSACTION" SV="1.11">medicationschemeelement</cd>
    ...
    <item>
        ...
        <cd S="CD-ITEM" SV="1.11">medication</cd>
        ...
        <beginmoment>
            <date>2030-09-01</date>
        </beginmoment>
        ...
    </item>
    ...
</transaction>
...
```

## Medication element <endmoment>

This is the date until which the medication can be taken.

In the next example, the medication should not be taken anymore starting from the 1th of november 2030:

Example
<pre>... &lt;transaction&gt;     &lt;id S="ID-KMEHR" SV="1.0"&gt;46&lt;/id&gt;     ...     &lt;cd S="CD-TRANSACTION" SV="1.11"&gt;medicationschemeelement&lt;/cd&gt;     ...     &lt;item&gt;         ...         &lt;cd S="CD-ITEM" SV="1.11"&gt;medication&lt;/cd&gt;         ...         &lt;beginmoment&gt;             &lt;date&gt;2000-01-01&lt;/date&gt;         &lt;/beginmoment&gt;         &lt;endmoment&gt;             &lt;date&gt;2030-10-31&lt;/date&gt;         &lt;/endmoment&gt;         ...     &lt;/item&gt;     ... &lt;/transaction&gt; ...</pre>

## Medication element <duration>

An implicit endmoment can be expressed by defining a duration. This duration defines the period, starting from the beginmoment, during which the medication can be taken.

In the next example, the medication should not be taken anymore starting from the 1th of november 2030:

Example
<pre>... &lt;item&gt;     ...     &lt;beginmoment&gt;         &lt;date&gt;2030-10-01&lt;/date&gt;     &lt;/beginmoment&gt;     ...     &lt;duration&gt;         &lt;decimal&gt;31&lt;/decimal&gt;         &lt;unit&gt;             &lt;cd S="CD-TIMEUNIT" SV="2.1"&gt;d&lt;/cd&gt;         &lt;/unit&gt;     &lt;/duration&gt;     ... </pre>

## Medication element <regimen>

This is the element that provides a structure to be able to express a posology in a structured way.

The element <regimen> is mutually exclusive with the element <posology>.

## Medication element <posology>

Only when it is not possible to express the medication posology in a structured way with <regimen>, it can be passed to Vitalink as free text.

The element <posology> is mutually exclusive with the element <regimen>.

The element <posology> contains exactly 1 element <text>.

### Example

```
...
<item>
    <id S="ID-KMEHR" SV="1.0">2</id>
    <cd S="CD-ITEM" SV="1.11">medication</cd>
    ...
    <posology>
        <text L="nl">Until 3 x 1 per day with meal, during max 3 days and minimally 4hours between 2 ingestions.</text>
    </posology>
    ...
</item>
...
```

## Medication element <route>

This element specifies the administration route.

## Medication element <instructionforpatient>

This is the usage instruction for the patient.

## Medication element <instructionforoverdosing> (deprecated)

This is the medical justification when the product is overdosed.

## Transaction element <item> "healthcareelement"

To include certain Vitalink specific information within the medication scheme data element, use must be made of separate item with value 'healthcareelement'.

In order to further define these healthcareelements, the list CD-ITEM-MS was created for Vitalink, with as permitted values:

healthcareelement	value of <content>
adaptationflag	Kmehr table CD-MS-ADAPTATION
begincondition	Text field
endcondition	Text field
medicationtype	Kmehr table CD-MS-MEDICATIONTYPE
medicationuse	Text field
origin	Kmehr table CD-MS-ORIGIN

## Healthcarelement "adaptationflag"

This healthcareelement is not be used by Vitalink. The original intention was to indicate the changes compared to the previous version of the transaction.

However an application should compare the complete transaction with the old version to find the differences, and not rely upon this adaptationflag.

### Obsolete

The rest of this paragraph is obsolete information. It is not omitted from the documentation in order to preserve the history of its original intention.

By using a value of the table CD-MS-ADAPTATION it can be indicated where in the kmehr message modifications have been made by the end user.

Permitted values for this list are:

- nochanges

- medication
- posology
- treatmentsuspension

If changes have taken place to several parts of the kmehr message, it is possible to enter multiple values. However if the value 'nochanges' is used, only this value is permitted.

Example
<pre>... &lt;item&gt;     &lt;id SV="1.0" S="ID-KMEHR"&gt;2&lt;/id&gt;     &lt;cd SV="1.3" S="CD-ITEM"&gt;healthcareelement&lt;/cd&gt;     &lt;content&gt;         &lt;cd SV="1.0" S="CD-ITEM-MS"&gt;adaptationflag&lt;/cd&gt;         &lt;cd SV="1.0" S="CD-MS-ADAPTATION"&gt;medication&lt;/cd&gt;         &lt;cd SV="1.0" S="CD-MS-ADAPTATION"&gt;posology&lt;/cd&gt;     &lt;/content&gt; &lt;/item&gt; ...</pre>

## Healthcarelement "begincondition"

This is an element containing a textual description with the condition when the treatment should be started.

## Healthcarelement "endcondition"

This is an element containing a textual description with the condition when the treatment should be ended.

## Healthcarelement "medicationtype"



### Under discussion

This paragraph is under discussion and needs to be reviewed.

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[STATUS](#)

The type of the medication can be indicated via CD-MS-MEDICATIONTYPE.

Permitted values for this list are:

- onprescription
- otc
- other

## Healthcarelement "medicationuse"

Example
<pre>... &lt;item&gt;     &lt;id SV="1.0" S="ID-KMEHR"&gt;2&lt;/id&gt;     &lt;cd SV="1.11" S="CD-ITEM"&gt;healthcareelement&lt;/cd&gt;     &lt;content&gt;         &lt;cd SV="1.0" S="CD-ITEM-MS"&gt;medicationuse&lt;/cd&gt;     &lt;/content&gt;     &lt;content&gt;         &lt;text L="nl"&gt;For stomachache&lt;/text&gt;     &lt;/content&gt; &lt;/item&gt; ...</pre>

## Healthcarelement "origin"

### Under discussion

This paragraph is under discussion and needs to be reviewed.

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[STATUS](#)

With the help of the list CD-MS-ORIGIN it can be indicated via which path the medication is included in the medication scheme. Has this occurred by means of the 'normal' path by which the medicine is prescribed by the doctor and is delivered by the pharmacist (or in the case of OTC medication, is only delivered by the pharmacist)? This path will be indicated with the code 'regularprocess'.

The other manner is that the patient or a care player indicates that he ingests certain medication. This medication can already be present at the patient's home; they have been obtained via friends or family or possibly purchased via the Internet or abroad. This medication can then still be included in the medication scheme and be indicated with the code 'recorded'.

Permitted values for this list are:

- regularprocess
- recorded

## Folder element <transaction> "treatmentsuspension" TS

The Vitalink transaction TS can be used to express a suspension of the treatment. A medication scheme can contain 0 or more suspensions.

### Kmehr parent transaction

Element	Vitalink meaning  Kmehr meaning: <a href="#">External Links#kmehr_transaction</a>	Kmehr	Vitalink
<i>id</i>	For the use in storage and consultation, see <a href="#">M. Storage and Consultation</a> .	Mandatory	=
<i>cd</i>	-	Mandatory	=
<i>date</i>	For the use in storage and consultation, see <a href="#">M. Storage and Consultation</a> .	Mandatory	=
<i>time</i>	For the use in storage and consultation, see <a href="#">M. Storage and Consultation</a> .	Mandatory	=
<i>author</i>	For the use in storage and consultation, see <a href="#">M. Storage and Consultation</a> .	Mandatory	=
<i>iscomplete</i>	Kmehr: Specifies if the transaction is complete. Vitalink: This element is not used. Since it is mandatory, Vitalink requires always the value "true".	Mandatory	=
	<p><a href="#">VIM-147</a> - Getting issue details... <a href="#">STATUS</a></p> <p><a href="#">VIM-149</a> - Getting issue details... <a href="#">STATUS</a></p>		
<i>isvalidated</i>	Kmehr: Specifies if the transaction is validated. Vitalink: This element is not used. Since it is mandatory, Vitalink requires always the value "true". See <a href="#">M. Concept: Usage of &lt;isvalidated&gt;</a> for further details.	Mandatory	=
<i>item</i>	-	Optional	[1-*]

### Vitalink child transaction TS

#### Transaction element <item>

Each Kmehr element <item> consists of the next elements:

Element	Vitalink meaning Kmehr meaning: External Links#kmehr_item	Kmehr	Vitalink
<i>id</i>	Vitalink: For Vitalink, this value has no extra meaning.	Mandatory	=
<i>cd</i>	Kmehr: The type of the item.  Vitalink: 1 item "medication" and 0 or more items "transactionreason"	Mandatory	=

## Transaction element <item> "medication"

The item medication has of the following additional elements:

Element	Type	Vitalink
group of elements for medication information	Refer to corresponding paragraph.	Mandatory
<i>beginmoment</i>	<date>	Mandatory
<i>endmoment</i>	<date>	Optional, not together with <i>duration</i>
<i>duration</i>	<b>VIM-147</b> - Getting issue details... <span style="border: 1px solid #ccc; padding: 2px;">STATUS</span>	Optional, not together with <i>endmoment</i>
<i>lifecycle</i>	CD-LIFECYCLE	Mandatory
<i>lnk</i>	Refer to corresponding paragraph.	Mandatory

## Medication elements for medication information

These elements should be exactly the same as the medication information elements of the corresponding transaction MSE.

### Medication element <beginmoment>

This is the date from when the treatment should be suspended.

In the next example, the medication should not be taken anymore, until further notice, starting from the 1th of august 2030:

#### Example

```

...
<transaction>
    <id S="ID-KMEHR" SV="1.0">46</id>
    ...
    <cd S="CD-TRANSACTION" SV="1.11">medicationschemeelement</cd>
    ...
</transaction>
...
<transaction>
    <id S="ID-KMEHR" SV="1.0">49</id>
    ...
    <cd S="CD-TRANSACTION" SV="1.11">treatmentsuspension</cd>
    ...
    <item>
        ...
        <beginmoment>
            <date>2030-08-01</date>
        </beginmoment>
        ...
        <lnk TYPE="isplannedfor" URL="/kmehr:transaction[id[@S='ID-KMEHR']=46]"/>
    </item>
    ...
</transaction>
...

```

## Medication element <endmoment>

This is the date until which the treatment should be suspended.

In the next example, the medication can be taken again earliest starting from the 1th of july 2030:

Example
<pre>... &lt;transaction&gt;     &lt;id S="ID-KMEHR" SV="1.0"&gt;46&lt;/id&gt;     ...     &lt;cd S="CD-TRANSACTION" SV="1.11"&gt;medicationschemeelement&lt;/cd&gt;     ... &lt;/transaction&gt; ... &lt;transaction&gt;     &lt;id S="ID-KMEHR" SV="1.0"&gt;49&lt;/id&gt;     ...     &lt;cd S="CD-TRANSACTION" SV="1.11"&gt;treatmentsuspension&lt;/cd&gt;     ...     &lt;item&gt;         ...         &lt;beginmoment&gt;             &lt;date&gt;2000-01-01&lt;/date&gt;         &lt;/beginmoment&gt;         &lt;endmoment&gt;             &lt;date&gt;2030-06-30&lt;/date&gt;         &lt;/endmoment&gt;         ...         &lt;lnk TYPE="isplannedfor" URL="/kmehr:transaction[id[@S='ID-KMEHR']= '46' ]"/&gt;     &lt;/item&gt;     ... &lt;/transaction&gt; ...</pre>

## Medication element <duration>

An implicit endmoment can be expressed by defining a duration. This duration defines the period, starting from the beginmoment, during which the medication can not be taken.

In the next example, the medication can be taken again earliest starting from the 1th of december 2030:

### Example

```
...
<transaction>
    <id S="ID-KMEHR" SV="1.0">46</id>
    ...
    <cd S="CD-TRANSACTION" SV="1.11">medicationschemeelement</cd>
    ...
</transaction>
...
<transaction>
    <id S="ID-KMEHR" SV="1.0">49</id>
    ...
    <cd S="CD-TRANSACTION" SV="1.11">treatmentsuspension</cd>
    ...
    <item>
        ...
        <beginmoment>
            <date>2030-11-01</date>
        </beginmoment>
        <duration>
            <decimal>30</decimal>
            <unit>
                <cd S="CD-TIMEUNIT" SV="2.1">d</cd>
            </unit>
        </duration>
        ...
        <lnk TYPE="isplannedfor" URL="//kmehr:transaction[id[@S='ID-KMEHR']= '46' ]"/>
    </item>
    ...
</transaction>
...
```

## Medication element <lifecycle>

This element specifies if the suspension is temporary ("suspended") or definite ("stopped"). This lifecycle is only indicative, i.e. an application should not use this to interpret or express that a treatment should be stopped permanently. In the latter case, the application should remove the treatment.

## Medication element <lnk>

This element contains a link to the transaction MSE that is suspended. The content is an XPath link identifying the corresponding MSE by its ID-KMEHR id.

### Example

```
...
<transaction>
    <id S="ID-KMEHR" SV="1.0">46</id>
    ...
    <cd S="CD-TRANSACTION" SV="1.11">medicationschemeelement</cd>
    ...
</transaction>
...
<transaction>
    <id S="ID-KMEHR" SV="1.0">49</id>
    ...
    <cd S="CD-TRANSACTION" SV="1.11">treatmentsuspension</cd>
    ...
    <item>
        ...
        <cd S="CD-ITEM" SV="1.4">medication</cd>
        ...
        <lnk TYPE="isplannedfor" URL="//kmehr:transaction[id[@S='ID-KMEHR']= '46' ]"/>
    </item>
    ...
</transaction>
...
```

## Transaction element <item> "transactionreason"

The item medication has of the following additional elements:

Element	Type	Vitalink
content	Text field	Mandatory

**Example**

```
...
<item>
    <id S="ID-KMEHR" SV="1.0">2</id>
    <cd S="CD-ITEM" SV="1.11">transactionreason</cd>
    <content>
        <text L="nl">Replaced by Fraxiparine because of tooth extraction</text>
    </content>
</item>
...
```