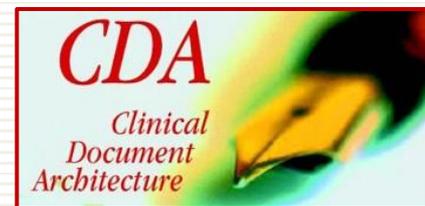# Dansk profil for HL7 PHMR Data, datatyper og koder

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HL7 v3. data types

- Basic data types
  - ANY
  - Booleans
  - Quantities
- Text and multimedia
  - BIN Binary
  - ED Encapsulated Data
  - ST String
- Demographic Data
  - ADXP Address Part
  - AD Address
  - Name Part
  - EN Entity Name
  - ON Organization name
  - PN Person Name
  - TN Trivial Name
  - II Instance Identifier
  - TEL Telecommunication Address

- Codes
  - CD Concepts Descriptor
  - CE Coded with Equivalents
  - CV Coded Value
  - CO Coded Ordinal
  - CS Coded Simple
- Date and Times
  - TS Time Stamp
  - IVL_TS Interval of Time
  - PIVL_TS Periodoc Interval of Time
  - EIVL_TS Event-Related Periodic Interval of Time
  - GTS Generic Timing Specification
  - Use of Time Data Types with Medications
- Collections
  - BAG Bag
  - SET Set
  - IVL Interval

HL7 v3. data types (Used in the PHMR)

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ST String

In a String, data is left justified with trailing blanks optional. Any printable ASCII characters are allowed.

An empty string must send a flavor of null.

ADXP Address Part

Postal addresses can be parsed into a collection of different parts. Each of these parts identifies a geographic or political boundary at some level of detail.

<streetAddressLine>
The <streetAddressLine> element is intended to record a physical address. This address may be used to deliver correspondence or to physically locate the destination. The CDA standard allows this element to be repeated as many times as needed.
<city>
The <city> element records the city, town or municipality associated with the address.
<postalCode>
The <postalCode> element records codes used and defines by the delivery agent to identify the delivery or street address.
<country>
The <country> element records the country. HL7 Data Type Release 2 will allow the country can be bound to a list of legal values. ISO 3166 Part 1 defines one such list of country codes.

AD Address

The Address data type is used to record the postal addresses. They are modeled as a collection of geographical or political boundaries at various levels of detail and are used to deliver mail or packages. The CDA standard treats and address as an arbitrary list of address parts elements (see the ADXP data type) and text.

According to the XML schema, each of the different parts of the <addr> element can appear as many times as necessary. However, it does not make sense for an address to have two <postalCode> elements. The same is true for several other elements. Almost all components should appear only once with the exception of the <streeAddressLine> or <deliveryAddressLine> element.

ON Organization Name

Organization names are a list of <prefix>, <suffix>, <delimiter> and <name> elements and text that represent the name of an organization.

ON Organization Name

Organization names are a list of <prefix>, <suffix>, <delimiter> and <name> elements and text that represent the name of an organization.

PN Person Name

Person names are a list of <prefix>, <given>, <family>, <suffix> and <delimiter> elements and text. The PN data type is found in the <name> element of the <assignedPerson>, <associatedPerson>, <guardianPerson>, <informationRecipient>, <maintainingPerson>, <relatedPerson>, <playingEntitry>, <specimenPlayingEntity> and <subject> elements.
The PN data type is derived from the EN data type and so also supports the use attribute and the <validTime> element of that data type.

II Instance Identifier

The II data type is used to identify different instances of a kind of thing. The data type is used extensively in the CDA specification to identify persons, things, actions, roles etc. The II data type most commonly appears in the <id> elements found in the CDA schema. It is also used by the <setId>, <templateId> and <typeId> elements.

TEL Telecommunications Address (1/3)

A telecommunications address or endpoint specifies how to contact someone or something using telecommunications equipment. That includes the telephone, a fax machine, e-mail, the web, instant messaging, et cetera. All telecommunications address can be represented by a URI.

Value
The value attribute of a <telecom> data element provides the URI identifying the communication endpoint.

TEL Telecommunications Address (2/3)

Use

The use attribute provides codes describing the type of communication endpoint.

Code	Display name	Comments
H	home address	A personal or home phone, e-mail or other personal device.
HP	primary home	The usual address used to reach a person after business hour
HV	vacation home	The address to reach a person during vacations
**TBD	More codes are available. The use and selection TBD.	

Telephone and fax

Telephone and fax equipment can be represented using the tel: URI schemes defined in RFC 3966.

** TBD: more information regarding the use and format.

TEL Telecommunications Address (3/3)

E-mail
E-mail addresses are represented using the mailto: URI scheme defined in RFC 2368. Technically, more than one e-mail address is permitted in the mailto: URI scheme and additional parameters describing the subject line and body of the message may also be present.

Web sites
Web site addresses are formatted using the http: and https: URI formats which are describes in RFC 2396.

Instant Messaging
Instant messaging URI's should use the im: scheme defined in RFC 3860.

Example: <telecom value=im:NancyAnnBerggren@skype.com/>

Texting and Short Messaging Service
Short messages URI's should use the sms: scheme defined in the RFC 5724

CE Coded with eqvivalent

The CE data type is used to exchange coded concepts that are not permitted to contain qualifiers and so do not allow for codes to be created compositionally using post-coordination.

CS Coded simple

The CS data type is used to convey codes that have a fixed value for codeSystem. It is used in the CDA specification for coded values where there is only one choice for the codeSystem according to the standard.

TS Time Stamp

The representation of the HL7 time stamp data type is based upon the ISO 8601 standard for representations of time.
The representation of time uses two digits each to represent the century, year within century, month, day, hour, minute and second. The second can be be followed by a decimal point and fractional parts of a second. Finally, the time may include a + or – sign followed by up to four digits representing the offset in hours and minutes from Universal Coordinated Time (UTC).
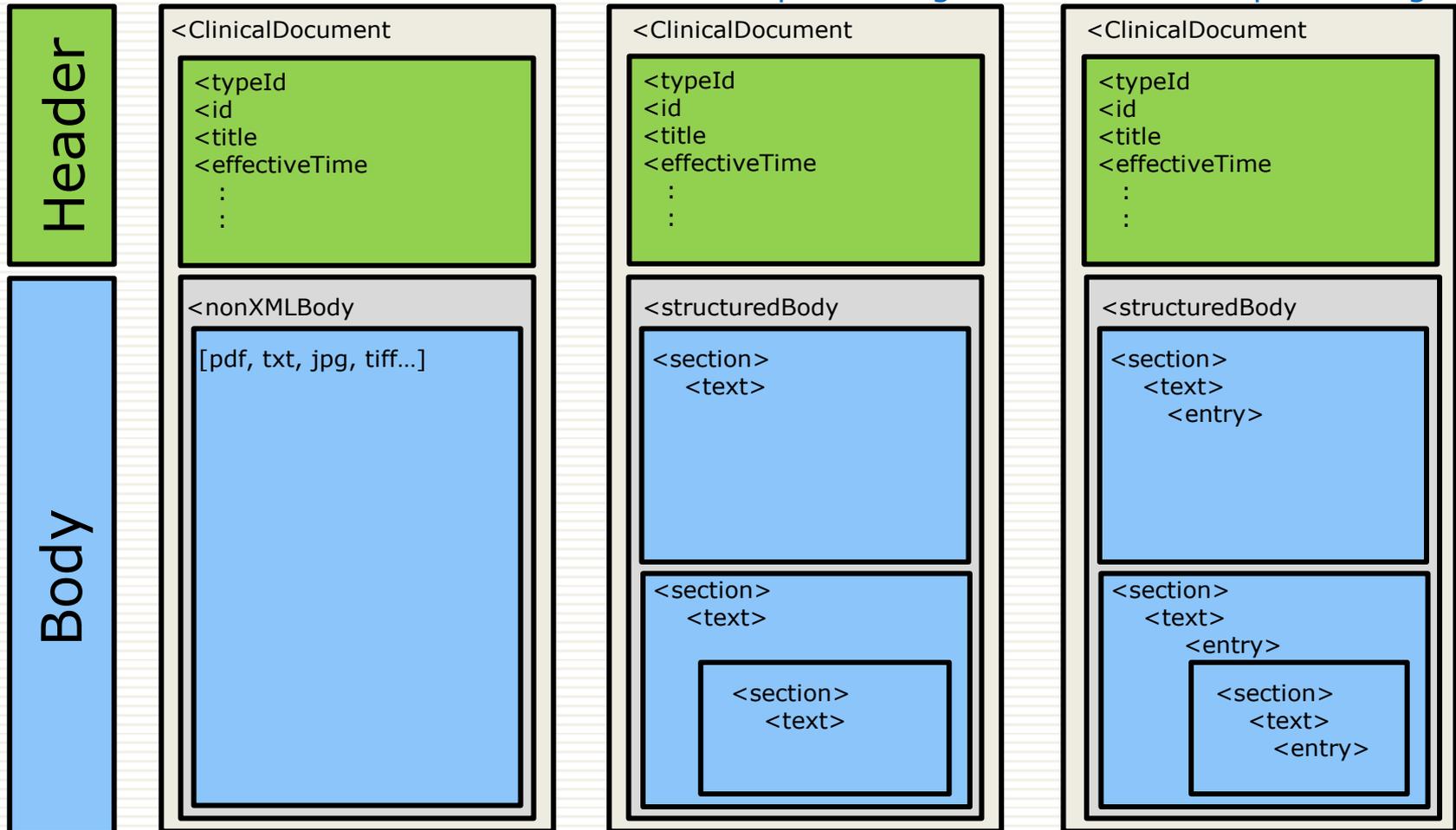
The format for time is: YYYYMMDDhhmmss.SSS±ZZzz

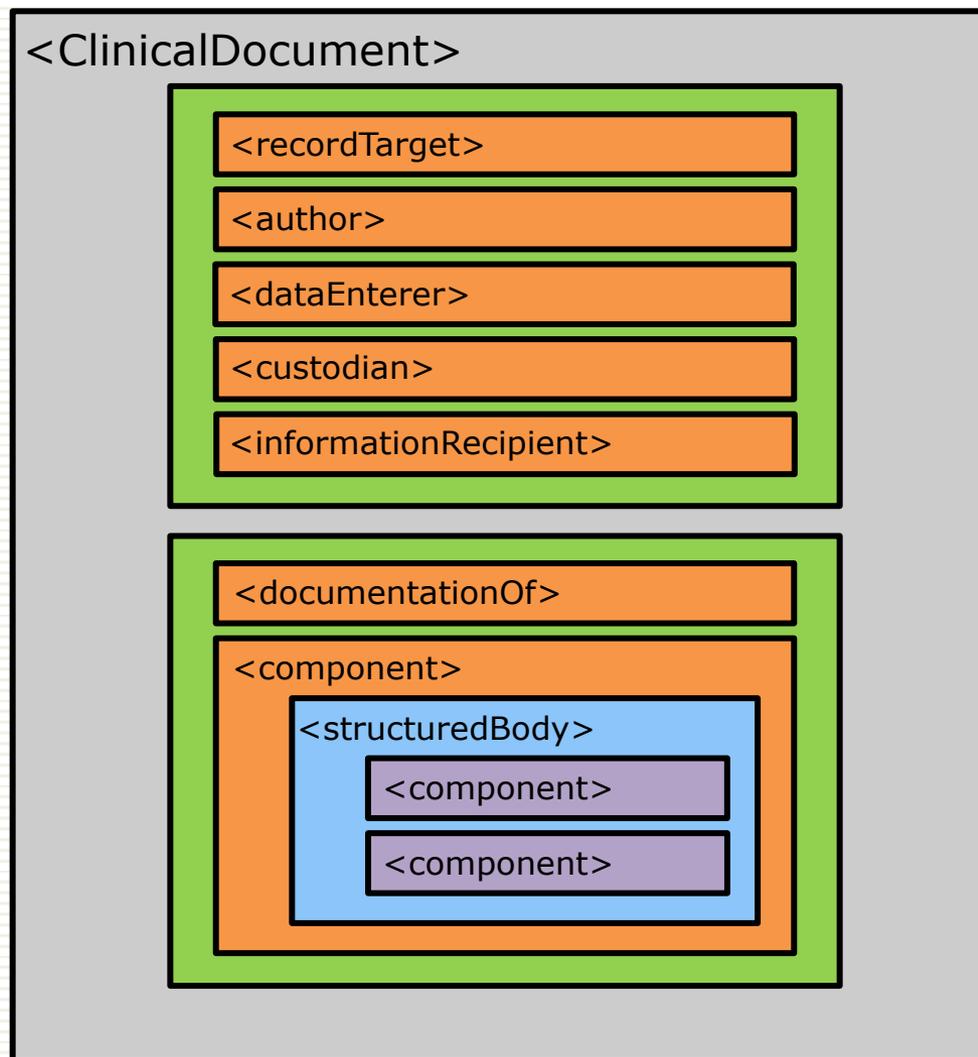|	
YYYY	The year of the event
MM	The month in the full year
DD	The day in the month and year
hh	The hour in the day
mm	The minute in the hour
ss	The second in the minute
.SSS	Fraction of a second
±	Direction of offset from UTC
ZZ	Hours offset from UTC
Zz	Minutes offset from UTC

CDA structure

Level 1:
non structured

Level 2:
structured
limited processing
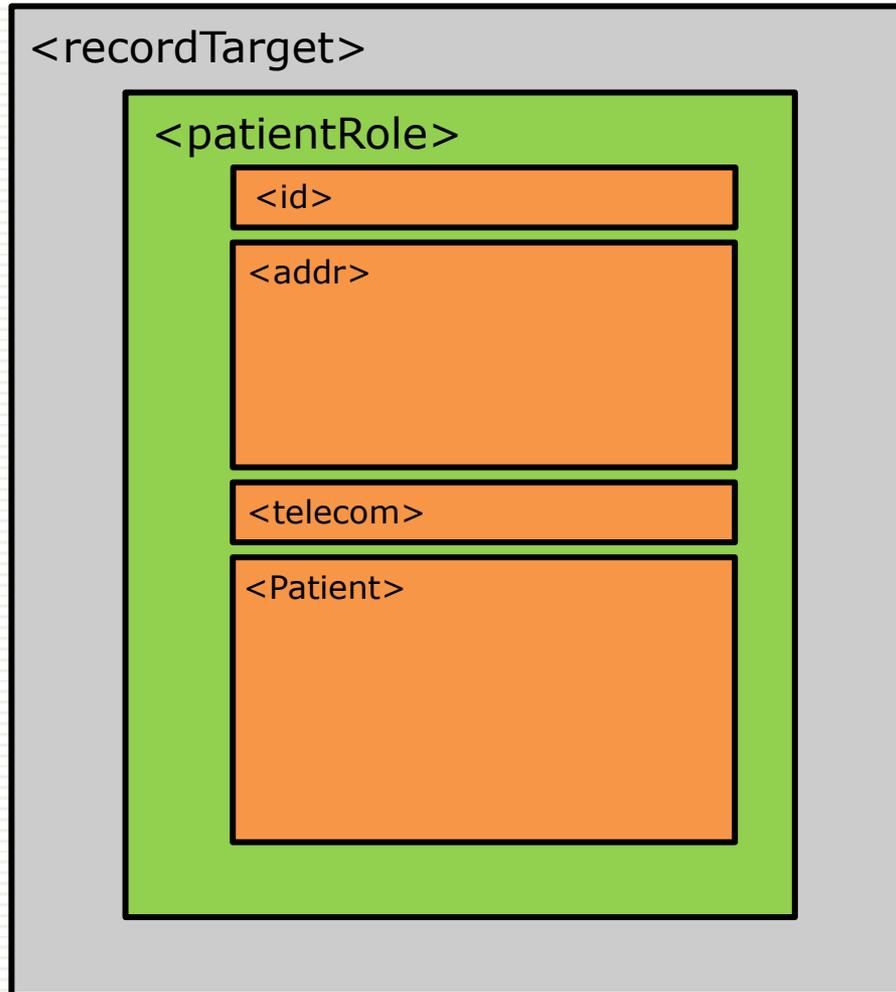
Level 3:
structured
advanced processing

Header

Body

<ClinicalDocument

<typeId
<id
<title
<effectiveTime
⋮
⋮

<nonXMLBody

[pdf, txt, jpg, tiff…]

<ClinicalDocument

<typeId
<id
<title
<effectiveTime
⋮
⋮

<structuredBody

<section>
  <text>

<section>
  <text>

<section>
  <text>

<ClinicalDocument

<typeId
<id
<title
<effectiveTime
⋮
⋮

<structuredBody

<section>
  <text>
    <entry>

<section>
  <text>
    <entry>

<section>
  <text>
    <entry>

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PHMR CDA structure

<ClinicalDocument>

<recordTarget>

<author>

<dataEnterer>

<custodian>

<informationRecipient>

<documentationOf>

<component>

<structuredBody>

<component>

<component>

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ClinicalDocument (DK header) - example

```xml
<ClinicalDocument xmlns="urn:hl7-org:v3" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
classCode="DOCCLIN" moodCode="EVN">
  <typeId extension="POCD_HD000040" root="**TBD"/>
    <id extension="**TBD" root="**TBD"/>
  <code code="**TBD" codeSystem="**TBD" codeSystemName="**TBD" displayName="Personal Health
Monitoring Report"/>
  <title>PHMR for patient 010189-1626</title>
  <effectiveTime value="20130912120522"/>
  <confidentialityCode code="N" codeSystem="**TBD"/>
  <languageCode code="da-DK"/>
```

recordTarget - structure

recordTarget – example

```xml
<recordTarget contextControlCode="OP" typeCode="RCT">
  <patientRole classCode="PAT">
    <id extension="010189-1626" root="**TBD"/>
    <addr>
      <streetAddressLine>Åvej 12, 1 th</streetAddressLine>
      <postalCode>8010</postalCode>
      <country>Danmark</country>
    </addr>
    <telecom value="tel:64294829"/>
    <patient classCode="PSN" determinerCode="INSTANCE">
      <name>
        <given>Nancy</given>
        <given>Ann</given>
        <family>Berggren</family>
      </name>
      <administrativeGenderCode code="F" codeSystem="**TBD"/>
      <birthTime value="19891648"/>
    </patient>
  </patientRole>
</recordTarget>
```
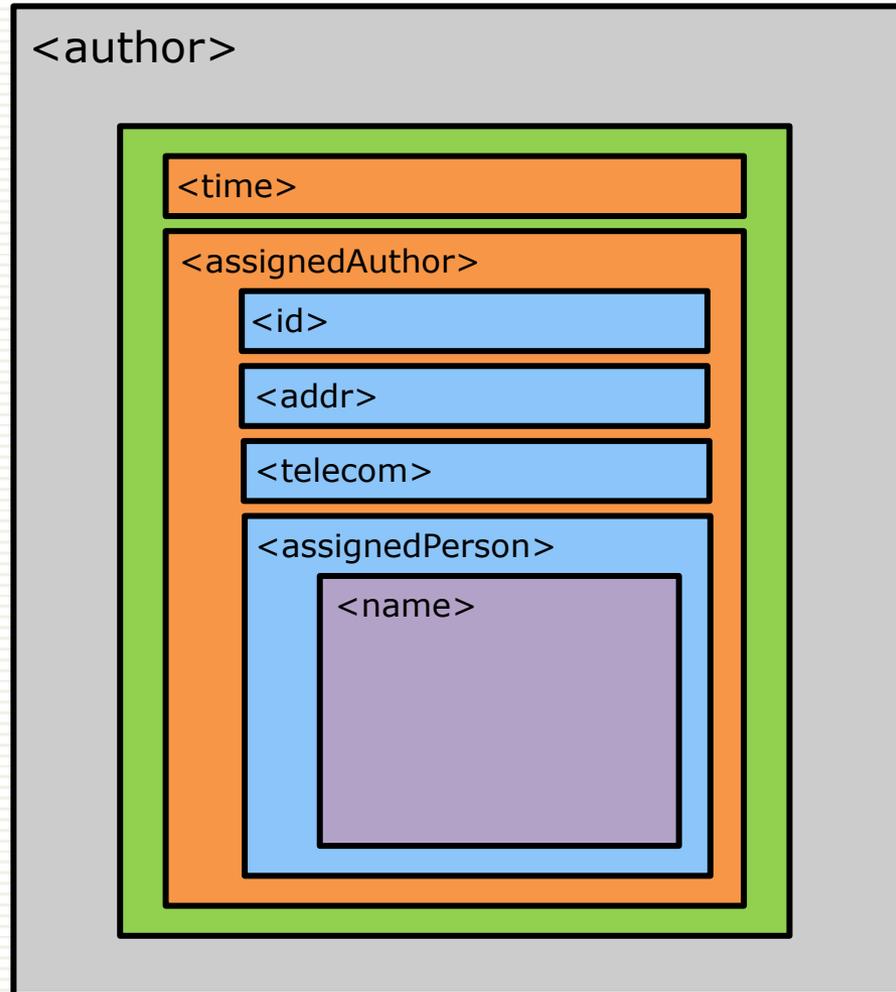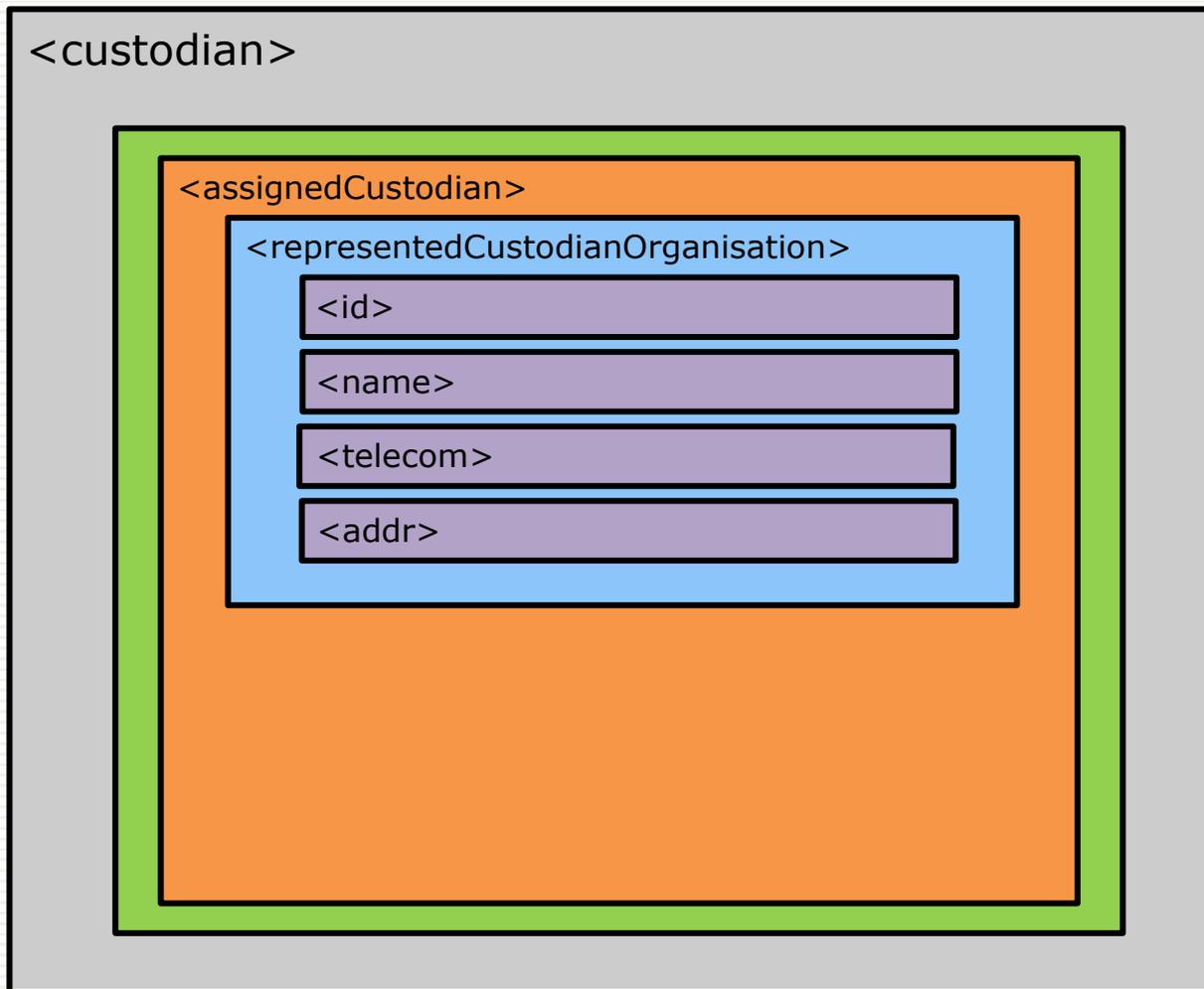
author - structure

author – example

```xml
<author contextControlCode="OP" typeCode="AUT">
  <time value="20130912120522"/>
  <assignedAuthor classCode="ASSIGNED">
    <id extension="**TBD" root="**TBD"/>
    <addr>
      <streetAddressLine>Åvej 12, 1 th</streetAddressLine>
      <postalCode>5230</postalCode>
      <country>Danmark</country>
    </addr>
    <telecom value="tel:66111111"/>
    <assignedPerson>
      <name>
        <given>Ole</given>
        <family>Olsen</family>
      </name>
    </assignedPerson>
  </assignedAuthor>
</author>
```
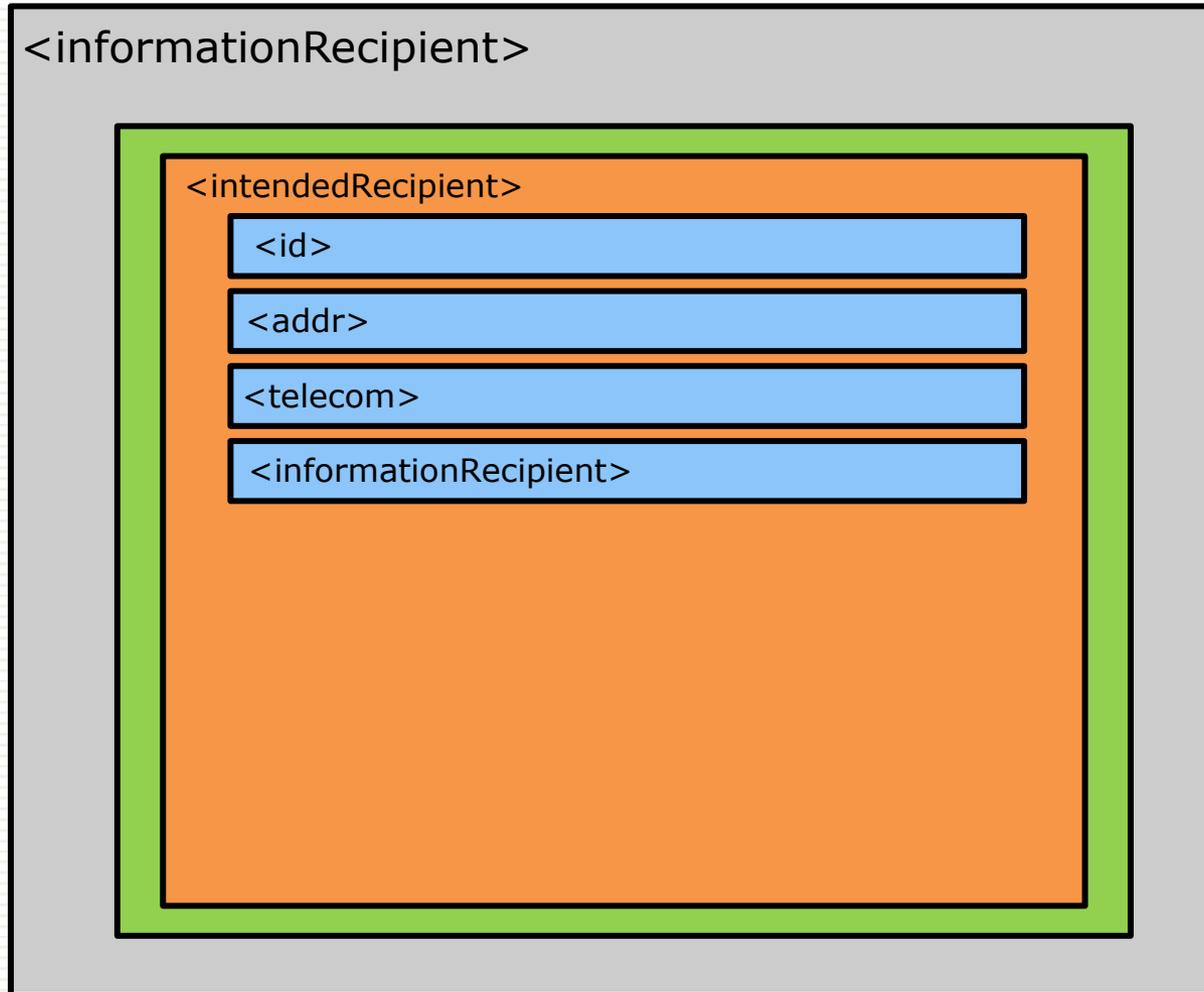
PHMR CDA – custodian

<custodian>

  <assignedCustodian>

    <representedCustodianOrganisation>

      <id>

      <name>

      <telecom>

      <addr>

custodian – example

```xml
<custodian typeCode="CST">
 <assignedCustodian classCode="ASSIGNED">
  <representedCustodianOrganization classCode="ORG" determinerCode="INSTANCE">
   <id extension="**TBD" root="**TBD"/>
   <name>**TBD</name>
   <telecom value="tel:65123456"/>
   <addr>
    <streetAddressLine>Åvej 12, 1th</streetAddressLine>
    <postalCode>5000</postalCode>
    <country>Danmark</country>
   </addr>
  </representedCustodianOrganization>
 </assignedCustodian>
</custodian>
```

PHMR CDA – informationRecipient

Bruges i
PHMR DK profilet?