



4. Tekniske FHIR møde for standarderne 'CareCommunication' og 'HospitalNotification'

Online- møde, d. 11. januar 2021

Kl. 10.00-14.00



The screenshot shows the SIMPLIFIER.NET website interface. At the top, there is a search bar and navigation links for SNIPPET and FEEDBACK. Below the header, the main content area is titled 'MedCom FHIR Messaging' and includes a 'Home of MedCom FHIR Messaging Profiles' section. A navigation bar contains links for Introduction, Resources, Guides, Team, Log, Dependencies, and Packages. On the left, there is a 'Resources' sidebar with links to Profiles, ValueSets, CodeSystems, Extensions, ImplementationGuides, and Texts. The main content area features a heading 'Velkommen til MedComs FHIR Meddelelser (version 0.9)' followed by a paragraph in Danish and English. Below this is a table with three columns: Profile name, Documentation, and Profile. The table lists 'HospitalNotification' and 'CareCommunication' with their respective documentation and profile links. A note at the bottom states: 'Please bear in mind that this is also a learning project for us, so that the quality of the documentation also will evolve over time'.

Velkommen til MedComs FHIR Meddelelser (version 0.9)
Her findes links til Sundhedsfaglige retningslinjer (DOC) - på dansk og engelsk, samt use cases på dansk og engelsk.

Profile name	Documentation	Profile
HospitalNotification	DOC / Use Cases	Profile
CareCommunication	DOC / Use Cases	Profile

Please bear in mind that this is also a learning project for us, so that the quality of the documentation also will evolve over time

Dagsorden



1. **Velkomst** v/Kirsten Ravn Christiansen, MedCom
2. **Status på version 0.9 for begge FHIR-standarder** v/MedCom
 - a. Orientering om ændringer fra version 0.9 til dagens møde for begge FHIR-standarder på baggrund af inputs fra Q&A-mødet i november 2020 v/Kirsten Ravn Christiansen og Jeanette Jensen
 - b. 'Bordet rundt' med feedback på version 0.9 for begge FHIR-meddelelser fra deltagerne v/Ole Vilstrup *(engelsk)*
 - c. Sammenligning af dataelementer mellem OIOXML og FHIR v/Irene Zuschlag *(engelsk)*
3. **Guidning i indpakning af FHIR-meddelelse i eksisterende VANSEnvelope** v/Ole Vilstrup, MedCom *(engelsk)*
4. **Intro til Touchstone** v/Anders Jensen, MedCom *(engelsk)*
 - a. Demonstration af test for begge FHIR-meddelelser
5. **Fra EDI til FHIR** v/Michael Johansen
 - a. Orientering om MedComs FHIR roadmap, med bølger af standarder der foretages EDIfact udfasning for
 - b. Migreringsstrategi fra EDIfact til FHIR
6. **Orientering om behov for indsamling af tidsplaner/roadmaps fra leverandører vedr. teknisk udvikling og forventet implementering af 'CareCommunication' og 'HospitalNotification'** v/Dorthe Skou Lassen, MedCom *(engelsk)*
7. **Eventuelt** v/MedCom

Video-mødekultur



- Mute mikrofonen
- Brug chatten
 - til kommentarer/spørgsmål

Kommuneteam



Dorthe Skou Lassen
Chefkonsulent

✉ dsl@medcom.dk

☎ [4040 5402](tel:40405402)



Kirsten Ravn Christiansen
Konsulent

✉ krc@medcom.dk

☎ [2091 7835](tel:20917835)



Jeanette Jensen
Konsulent

✉ jej@medcom.dk

☎ [5177 9050](tel:51779050)



Karina Møller Lorenzen
Konsulent

✉ kml@medcom.dk

☎ [+45 9117 4240](tel:+4591174240)



Mie Borch Dahl Kristensen
Konsulent

✉ mbk@medcom.dk

[2499 0054](tel:24990054)

Standardteam



Michael Johansen
Chefkonsulent

✉ mjo@medcom.dk

☎ [2937 1180](tel:29371180)



Irene Zuschlag
Konsulent

✉ ire@medcom.dk

☎ [2172 9612](tel:21729612)



Ole Vilstrup Møller
Konsulent

✉ ovi@medcom.dk

☎ [2476 0010](tel:24760010)



Anders Jensen
Konsulent

✉ anj@medcom.dk

[3057 5746](tel:30575746)

Velkommen til deltagerne

FHIR Ressource:

- Mjølner

EPJ leverandører + brugerrepræsentanter:

- Systematic
- EPIC
- NOVAX privat hospital

EOJ leverandører + brugerrepræsentanter:

- KMD Nexus
- Cura
- DXC Vitae
- EG Sensum

LPS-leverandører:

- NOVAX
- EG
- MultiMed
- CGM XMO
- MyClinic

KOMBIT beskedfordeler/agent:

- KOMBIT
- MultiMed
- KMD

Status på version 0.9 for begge FHIR-standarder

v/MedCom

Orientering om ændringer fra version 0.9 til dagens møde for begge standarder

v/Kirsten Ravn Christiansen og Jeanette Jensen

FHIR-Korrespondancemeddelelse



Kort status: ændringer fra 0.9 til 1.0

*Standard:
CareCommunication
(FDIS91)*

*Dansk/daglig tale:
FHIR-
Korrespondancemedde-
lelse (FHIR-KM)*

- ❖ Trække statistik på afsendte/modtagne FHIR-KM (national kategori)
 - Kategori-koderne tilføjes i statistikfeltet i VANS-envelope
- ❖ Præcisering af afsnit om bilag i Sundhedsfaglige anbefalinger
 - Oprindelig forfatter på bilag vs. ansvarlig for medsendelse af bilag
- ❖ Tilføjelse af use case
 - Besvarelse af MedCom-meddelelser med FHIR-KM

Status på FHIR advis om sygehushold Fra 0.9 til 1.0 version

Hvad skal afklares frem mod 1.0 version?

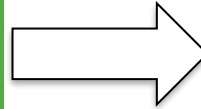
Fra Q & A
workshop
den 26.
nov.

- Håndtering af overflytning mellem regioner
 - Brug af option ”afsluttet til andet end hjemmet/primær sektor”
 - Krav omkring overflytning mellem regioner – i proces! (møde* den 4.12)
 - Statistik-tags til VANS envelope vedr. advistyper
 - Forretningsmæssige behov vedr. statistik (møde* den 4.12)
 - Teknisk håndtering (møde med MedWare møde 9.12)
 - Brug af entydig identifier til at binde adviser sammen
 - skal det være ”LPR3 identifier”?
- *i MedCom [hjemmepleje-sygehusgruppen](#)

Håndtering af overflytning mellem regioner

Hjemmepleje-sygehusgruppens møde den 4. dec. 2020:

- Kun én type SLUT avis: ved afslutning til hjemmet/primær sektor [SLHJ]
- Krav fastholdes om at der ikke skal sendes "Afsluttet til hjemmet" ved overflytning mellem regioner
- Pt. udfordring i Midt EPJ at undlade at sende SLUT avis
- Der arbejdes på en løsning i det vestdanske EPJ-samarbejde



Dokumentationen tilrettes ift. SLUT avis:

- Sundhedsfaglige anbefalinger og kodeoversigt
- Use case beskrivelser
- FHIR profilering

Dialog med det vestdanske it- samarbejde og leverandør om opfyldelse af krav ved idriftsættelse

Statistik tags til VANS envelope

Hjemmepleje-sygehusgruppens møde den 4. dec. 2020:

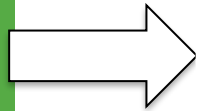
- Afklaring visning af advistyper i MedWare statistikken
- Præsenteres således:
- + Orlov Slut medtages

Modtagne Sygehusadvis_Akut ambulant

Modtagne Sygehusadvis_Indlagt

Modtagne Sygehusadvis_Orlov

Modtagne Sygehusadvis_Slut



Code	Provenance.activity	Visning i statistikopgørelse
AcuteAmbulant	admit-emergency	Sygehusadvis_Akut ambulant
AcuteAmbulant	revise-admit-emergency	Sygehusadvis_Akut ambulant
AcuteAmbulant	cancel-admit-emergency	Sygehusadvis_Akut ambulant
AdmissionInpatient	admit-inpatient	Sygehusadvis_Indlagt
AdmissionInpatient	revise-admit-inpatient	Sygehusadvis_Indlagt
AdmissionInpatient	cancel-admit-inpatient	Sygehusadvis_Indlagt
OnLeave	start-leave-inpatient	Sygehusadvis_Orlov
OnLeave	revise-start-leave-inpatient	Sygehusadvis_Orlov
OnLeave	cancel-start-leave-inpatient	Sygehusadvis_Orlov
EndOnLeave	end-leave-inpatient	Sygehusadvis_Orlov_Slut
EndOnLeave	revise-end-leave-inpatient	Sygehusadvis_Orlov_Slut
EndOnLeave	cancel-end-leave-inpatient	Sygehusadvis_Orlov_Slut
EndHospitalStay	discharge-[Encounter.Class]-home	Sygehusadvis_Slut
EndHospitalStay	revise-discharge-[Encounter.Class]-home	Sygehusadvis_Slut
EndHospitalStay	cancel-discharge-[Encounter.Class]-home	Sygehusadvis_Slut
EndHospitalStay	discharge-[Encounter.Class]-other	Sygehusadvis_Slut
EndHospitalStay	revise-discharge-[Encounter.Class]-other	Sygehusadvis_Slut
EndHospitalStay	cancel-discharge-[Encounter.Class]-other	Sygehusadvis_Slut
EndHospitalStay	"any activity"	Sygehusadvis_Slut
EndHospitalStay	"any activity"	Sygehusadvis_Slut
EndHospitalStay	"any activity"	Sygehusadvis_Slut

Type identifikatorer i FHIR advis

- Der peges på en "episode of care" identifikator, som unikt binder meddelelser sammen, som dannes i EPJ/PAS systemet og som fastholdes i samme indlæggelsesforløb i samme region.
- Der kan suppleres med en anden type identifikator, som potentielt kan være en LPR3 identifikator

Ny use case vil blive tilføjet

- Spørgsmål:
 - Hvordan skal advis håndteres, hvis patienten dør under orlov?
- Svar:
 - Der sendes Advis om død, når patienten registreres død i EPJ/PAS
 - (Obs Zulip: No message)
- Vil blive tilføjet som use case i 1.0 release.

**'Bordet rundt' med feedback på version 0.9 for
begge standarder**

”Bordet rundt” – feedback på version 0.9 for begge FHIR-meddelelser

EPJ leverandører:

- Systematic + brugerrepræsentanter
- EPIC + brugerrepræsentanter
- (NOVAX privat hospital)

EOJ leverandører

- KMD Nexus + brugerrepræsentanter
- Cura+ brugerrepræsentanter
- EG Sensum+ brugerrepræsentanter
- DXC Vitae + brugerrepræsentanter

LPS-leverandører: (only CareCommunication)

- NOVAX
- EG
- MultiMed
- CGM XMO
- MyClinic

KOMBIT beskedfordeler: (only HospitalNotification)

- MultiMed
- KMD

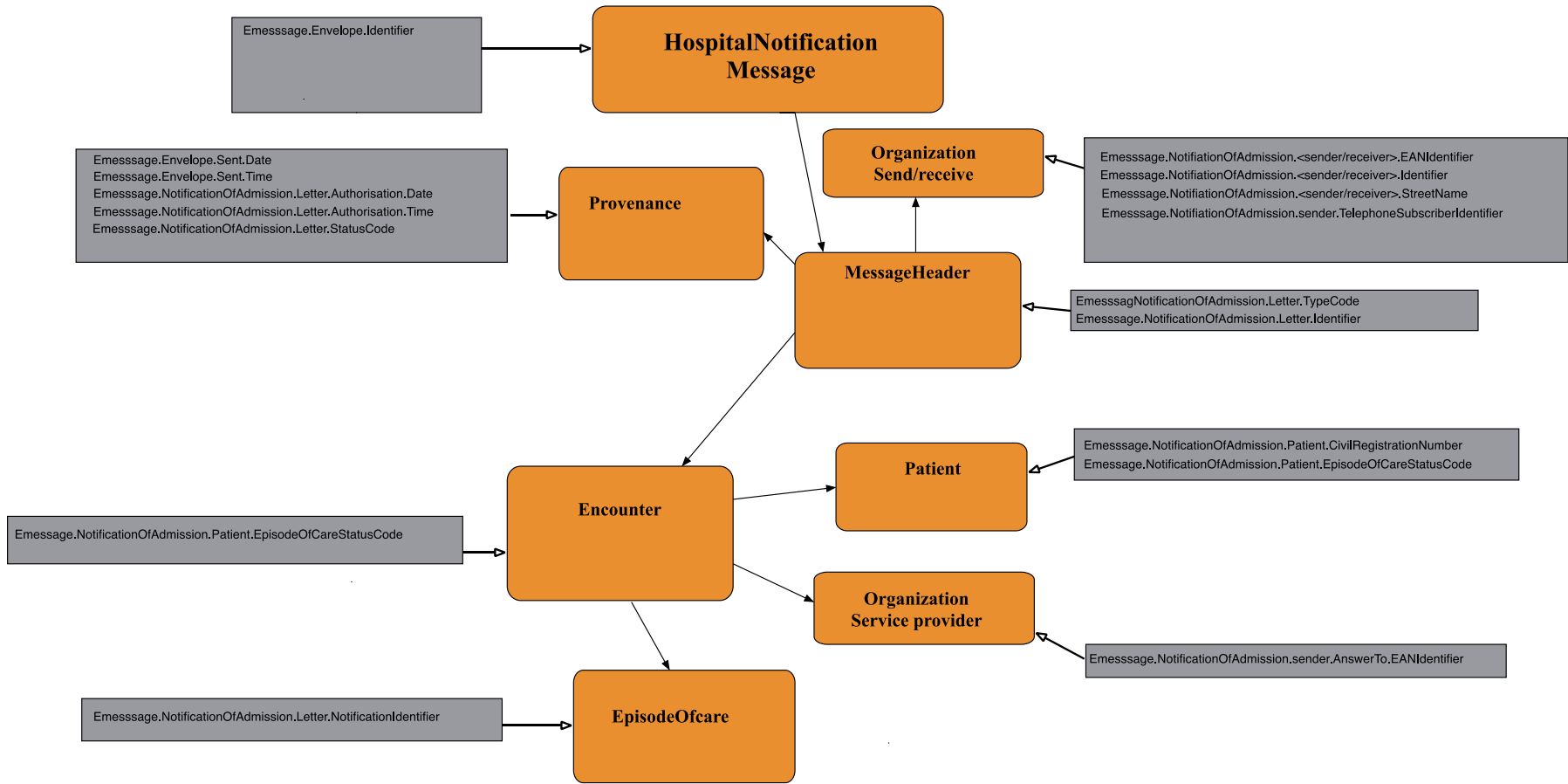
OIOXML
FHIR
Referencer

11. januar 2021



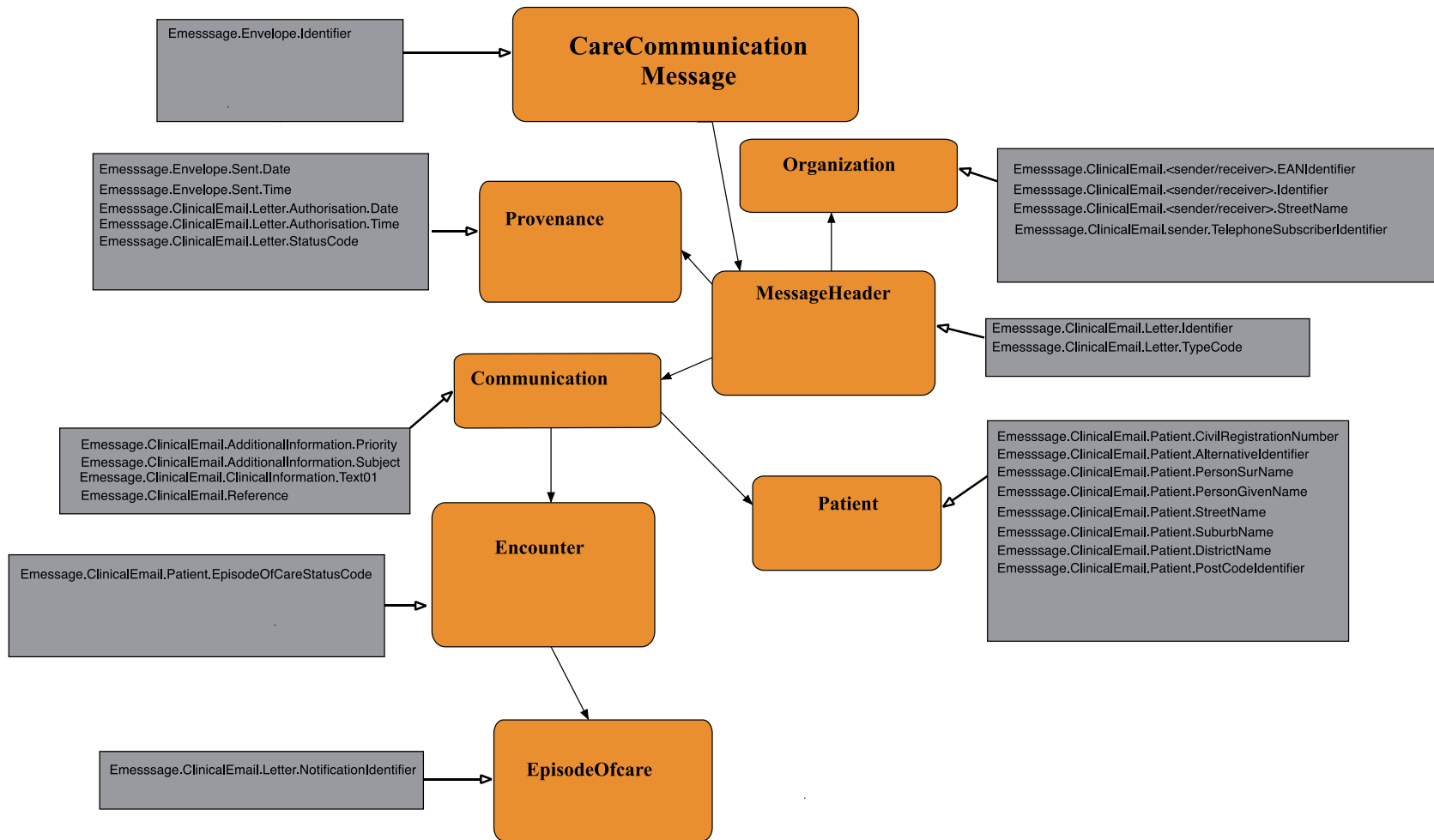
HospitalNotification

	OIOXML	FHIR profile	Comment
Date for Message sent	Emessage.Envelope.Sent.Date	Bundle.medcomMessagingMessage.medcomMessagingProvenance.occuredDatTime.timestamp	FHIR timestamp contains both date and time information
Time for Message sent	Emessage.Envelope.Sent.Time	Bundle.medcomMessagingMessage.medcomMessagingProvenance.occuredDatTime.timestamp	
Message block id	Emessage.Envelope.Identifier	Bundle.Identifier	
AcknowledgementCode	Emessage.Envelope.AcknowledgementCode	NA	All FHIR messages shall be acknowledged
Message data id	Emessage.NotificationOfAdmission.Letter.Identifier	Bundle.medComMessagingMessageHeader.identifier	
Version id	Emessage.NotificationOfAdmission.Letter.VersionCode	?	
Statistical id	Emessage.NotificationOfAdmission.Letter.StatisticalCode	NA	Only VANSEnvelope contains stastical code.
Autorisation timestamp date	Emessage.NotificationOfAdmission.Letter.Authorisation.Date	Bundle.medcomMessagingMessage.medcomMessagingProvenance.authorisation.timestamp	
Autorisation timestamp time	Emessage.NotificationOfAdmission.Letter.Authorisation.Time	Bundle.medcomMessagingMessage.medcomMessagingProvenance.authorisation.timestamp	
Message type (DIS20/DIS17)	Emessage.NotificationOfAdmission.Letter.TypeCode	Bundle.medcomMessagingMessage.event.eventcoding	
Message status	Emessage.NotificationOfAdmission.Letter.StatusCode	Bundle.medcomMessagingMessage.medcomMessagingProvenance.activity.ProvenanceActivityType	
Episode of care identifier	Emessage.NotificationOfAdmission.Letter.NotificationIdentifier	Bundle.medComMessagingMessageHeader.medComHospitalNotificationEncounter.episodeOfCare.identifier.value	
EAN id (sender/receiver)	Emessage.NotificationOfAdmission.<sender/receiver>.EANIdentifier	Bundle.medComMessagingMessageHeader.<destination.primary.receiver/sender>.medComMessagingOrganization.identifier.EANIdentifier	
Sender/receiver id	Emessage.NotificationOfAdmission.<sender/receiver>.Identifier	Bundle.medComMessagingMessageHeader.<destination.primary.receiver/sender>.medComMessagingOrganization.identifier.sorIdentifier	
Sender/receiver type	Emessage.NotificationOfAdmission.<sender/receiver>.IdentifierCode	NA	In FHIR always SOR
Sender/receiver organization	Emessage.NotificationOfAdmission.<sender/receiver>.OrganizationName	Bundle.medComMessagingMessageHeader.<destination.primary.receiver/sender>.medComMessagingOrganization.address.text	
Sender department	Emessage.NotificationOfAdmission.sender.DepartmentName	NA	The department is identified by SOR id
Sender unit	Emessage.NotificationOfAdmission.sender.UnitName	NA	The unit is identified by SOR id
Sender telephone	Emessage.NotificationOfAdmission.sender.TelephoneSubscriberIdentifier	Bundle.medComMessagingMessageHeader.<destination.primary.receiver/sender>.medComMessagingOrganization.telecom	
Answer to EAN id	Emessage.NotificationOfAdmission.sender.AnswerTo.EANIdentifier	Bundle.medComMessagingMessageHeader.medCom.hospitalNotificationEncounter.serviceProvider.reference	
Patient id	Emessage.NotificationOfAdmission.Patient.CivilRegistrationNumber	Bundle.medComMessagingMessageHeader.medComHospitalNotificationEncounter.medComCorePatient.identifier.cpr	
Episode of care status	Emessage.NotificationOfAdmission.Patient.EpisodeOfCareStatusCode	Bundle.medComMessagingMessageHeader.medComHospitalNotificationEncounter.class/status and Bundle.medComMessagingMessageHeader.medComHospitalNotificationEncounter.medComCorePatient.deceased	The FHIR message episodeofcare status is more complexed than the OIOXML message, please refer to the profile documentation
Notification start date	Emessage.NotificationOfAdmission.Patient.Admission.Date	Bundle.medComMessagingMessageHeader.medComHospitalNotificationEncounter.period.start	
Notification start time	Emessage.NotificationOfAdmission.Patient.Admission.Time	Bundle.medComMessagingMessageHeader.medComHospitalNotificationEncounter.period.start	
Flag to indicate that admission report shall be returned*	NA	?	



	OIOXML	FHIR profile	Comment
Date for Message sent	Emesssage.Envelope.Sent.Date	Bundle.medcomMessagingMessage.medcomMessagingProvenance.occuredDatTime.timestamp	FHIR timestamp contains both date and time information
Time for Message sent	Emesssage.Envelope.Sent.Time	Bundle.medcomMessagingMessage.medcomMessagingProvenance.occuredDatTime.timestamp	
Message block id	Emesssage.Envelope.Identifier	Bundle.Identifier	
AcknowledgementCode	Emesssage.Envelope.AcknowledgementCode	NA	All FHIR messages shall be acknowledged
Message data id	Emesssage.ClinicalEmail.Letter.Identifier	Bundle.medComMessagingMessageHeader.identifier	
Version id	Emesssage.ClinicalEmail.Letter.VersionCode	?	
Statistical id	Emesssage.ClinicalEmail.Letter.StatisticalCode	NA	Only VANSEnvelope contains stastical code.
Autorisation timestamp date	Emesssage.ClinicalEmail.Letter.Authorisation.Date	Bundle.medcomMessagingMessage.medcomMessagingProvenance.authorisation.timestamp	
Autorisation timestamp time	Emesssage.ClinicalEmail.Letter.Authorisation.Time	Bundle.medcomMessagingMessage.medcomMessagingProvenance.authorisation.timestamp	
Message type (XDIS91)	Emesssage.ClinicalEmail.Letter.TypeCode	Bundle.medcomMessagingMessage.event.eventcoding	
Message status	Emesssage.ClinicalEmail.Letter.StatusCode	Bundle.medcomMessagingMessage.medcomMessagingProvenance.activity.ProvenanceActivityType	Brevet er nyt, rettet eller fejl
Episode of care identifier	Emesssage.ClinicalEmail.Letter.NotificationIdentifier	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.MedComCoreEncounter.EpisodeOfCare.identifier	
EAN id (sender/receiver)	Emesssage.ClinicalEmail.<sender/receiver>.EANIdentifier	Bundle.entry.MedComMessagingMessageHeader.<destination.primary.receiver/sender>.MedComMessagingOrganization.identifier.EANIdentifier	
Sender/receiver id	Emesssage.ClinicalEmail.<sender/receiver>.Identifier	Bundle.entry.MedComMessagingMessageHeader.<destination.primary.receiver/sender>.MedComMessagingOrganization.identifier.sorIdentifier	
Sender/receiver type	Emesssage.ClinicalEmail.<sender/receiver>.IdentifierCode	NA	In FHIR always SOR
Sender/receiver organization	Emesssage.ClinicalEmail.<sender/receiver>.OrganizationName	Bundle.entry.MedComMessagingMessageHeader.<destination.primary.receiver/sender>.MedComMessagingOrganization.address.text	
Sender department	Emesssage.ClinicalEmail.<sender/receiver>.DepartmentName	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.sender.sorid	
Sender unit	Emesssage.ClinicalEmail.<sender/receiver>.UnitName	NA	The department is identified by SOR id
Sender streetname	Emesssage.ClinicalEmail.<sender/receiver>.StreetName	Bundle.entry.MedComMessagingMessageHeader.<destination.primary.receiver/sender>.MedComMessagingOrganization.address.line	
Sender telephone	Emesssage.ClinicalEmail.sender.TelephoneSubscriberIdentifier	Bundle.entry.MedComMessagingMessageHeader.<destination.primary.receiver/sender>.MedComMessagingOrganization.telecom	

Medical speciality code	Emessage.ClinicalEmail.sender.MedicalSpecialityCode	NA	Department is identified by SOR and this information is expected to be expressed in SOR
Patient id	Emessage.ClinicalEmail.Patient.CivilRegistrationNumber	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.MedComCorePatient.identifier.cpr	
Patient alternative id	Emessage.ClinicalEmail.Patient.AlternativeIdentifier	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.MedComCorePatient.identifier	
Patient family name	Emessage.ClinicalEmail.Patient.PersonSurName	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.MedComCorePatient.name.official.family	
Patient name	Emessage.ClinicalEmail.Patient.PersonGivenName	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalEmailCommunication.MedComCorePatient.name.official.given	
Patient street name	Emessage.ClinicalEmail.Patient.StreetName	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.MedComCorePatient.address.line	
Patients suburb name	Emessage.ClinicalEmail.Patient.SuburbName	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.MedComCorePatient.address.district	
Patient city name	Emessage.ClinicalEmail.Patient.DistrictName	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.MedComCorePatient.address.city	
Patient post code	Emessage.ClinicalEmail.Patient.PostCodeIdentifier	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.MedComCorePatient.address.postalCode	
Patient occupancy	Emessage.ClinicalEmail.Patient.OccupancyText	?	
Episode of care status	Emessage.ClinicalEmail.Patient.EpisodeOfCareStatusCode	Bundle.medComMessagingMessageHeader.medComHospitalNotificationEncounter.class and Bundle.medComMessagingMessageHeader.medComHospitalNotificationEncounter.status	The values for both status and class may be "Unknown"
Priority	Emessage.ClinicalEmail.AdditionalInformation.Priority	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.priority	
Subject	Emessage.ClinicalEmail.AdditionalInformation.Subject	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.topic	Relates to mandatory Category
Category*	NA	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalComposition.category	
Message	Emessage.ClinicalEmail.ClinicalInformation.Text01	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.payload.string	
References/attachments	Emessage.ClinicalEmail.Reference	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.payload.Attachment	
Author*	NA	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.payload.author	
Message timestamp*	NA	Bundle.entry.MedComMessagingMessageHeader.MedComClinicalCommunication.payload.dateTime	



Link til OIOXML FHIR referencer

- <http://svn.medcom.dk/svn/drafts/Standarder/HL7/FHIR/General%20documentation/OIOXML%20FHIR%20references.xlsx>

FHIR messages in VANSenvelope

/Ole Vilstrup, MedCom

FHIR messages in VANSenvelope

VANSenvelope contains 3 elements, which are influenced by FHIR as a new messagetype. These elements are contained in the element "VANSEnvelope/Message/MetaInformation/Document".

These are:

- Format
- Name
- Version

FHIR messages in VANSenvelope

Format

Format has the same value as "Standard type" in MedComs standard catalogue and is defined for all FHIR-standards to "HL7".

Name

Name has the same value as "Type nr." in MedComs standard catalogue and will therefore vary from messagetype to messagetype. Name is prefixed "MCM:" and will be postfixed with statistical variants of a given messagetype. Known from GGOP this for instance can be GGOP1, GGOP2 or GGOP3.

Version

Version has the same value as "Version" in MedComs standard catalogue and will therefore vary from message version to message version. We will though move towards a simpler value like "1.0"

VANSEnvelope - HospitalNotification

```
<?xml version="1.0" encoding="UTF-8"?>
<VANSEnvelope xmlns="urn:oio:medcom:vans-envelope:1.0.4"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:oio:medcom:vans-envelope:1.0.4 file:/C:/Repositories/drafts/VANSEnvelope/VANSEnvelope.xsd">
  <SenderID EndPointType="EAN">SenderID0</SenderID>
  <ReceiverID EndPointType="EAN">ReceiverID0</ReceiverID>
  <EnvelopeIdentifier>00000000-0000-0000-0000-000000000000</EnvelopeIdentifier>
  <SentDateTime>2021-01-01T00:00:00.0</SentDateTime>
  <Message>
    <MetaInformation>
      <Identifier>00000000-0000-0000-0000-000000000000</Identifier>
      <Document>
        <Format>HL7</Format>
        <Name>MCM:FDIS20#[<code>]</Name>
        <Version>1.0</Version>
        <SizeInBytes>0</SizeInBytes>
      </Document>
      <Transport>
        <Type>reliable</Type>
        <TransformMessage>>false</TransformMessage>
      </Transport>
    </MetaInformation>
    <Data>ZGVmYXVsdA==</Data>
  </Message>
</VANSEnvelope>
```

*[<code>] erstattes af værdier fra næste side

VANSenvelope - HospitalNotification

Code	Provenance.activity	Visning i statistikopgørelse
AcuteAmbulant	admit-emergency	Sygehusadvis_Akut ambulant
AcuteAmbulant	revise-admit-emergency	Sygehusadvis_Akut ambulant
AcuteAmbulant	cancel-admit-emergency	Sygehusadvis_Akut ambulant
AdmissionInpatient	admit-inpatient	Sygehusadvis_Indlagt
AdmissionInpatient	revise-admit-inpatient	Sygehusadvis_Indlagt
AdmissionInpatient	cancel-admit-inpatient	Sygehusadvis_Indlagt
OnLeave	start-leave-inpatient	Sygehusadvis_Orlov
OnLeave	revise-start-leave-inpatient	Sygehusadvis_Orlov
OnLeave	cancel-start-leave-inpatient	Sygehusadvis_Orlov
EndOnLeave	end-leave-inpatient	Sygehusadvis_Orlov_Slut
EndOnLeave	revise-end-leave-inpatient	Sygehusadvis_Orlov_Slut
EndOnLeave	cancel-end-leave-inpatient	Sygehusadvis_Orlov_Slut
EndHospitalStay	discharge-[Encounter.Class]-home	Sygehusadvis_Slut
EndHospitalStay	revise-discharge-[Encounter.Class]-home	Sygehusadvis_Slut
EndHospitalStay	cancel-discharge-[Encounter.Class]-home	Sygehusadvis_Slut
EndHospitalStay	discharge-[Encounter.Class]-other	Sygehusadvis_Slut
EndHospitalStay	revise-discharge-[Encounter.Class]-other	Sygehusadvis_Slut
EndHospitalStay	cancel-discharge-[Encounter.Class]-other	Sygehusadvis_Slut
EndHospitalStay	"any activity"	Sygehusadvis_Slut
EndHospitalStay	"any activity"	Sygehusadvis_Slut
EndHospitalStay	"any activity"	Sygehusadvis_Slut

VANSEnvelope - CareCommuncation

```
<?xml version="1.0" encoding="UTF-8"?>
<VANSEnvelope xmlns="urn:oio:medcom:vans-envelope:1.0.4"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:oio:medcom:vans-envelope:1.0.4 file:/C:/Repositories/drafts/VANSEnvelope/VANSEnvelope.xsd">
  <SenderID EndPointType="EAN">SenderID0</SenderID>
  <ReceiverID EndPointType="EAN">ReceiverID0</ReceiverID>
  <EnvelopeIdentifier>00000000-0000-0000-0000-000000000000</EnvelopeIdentifier>
  <SentDateTime>2021-01-01T00:00:00.0</SentDateTime>
  <Message>
    <MetaInformation>
      <Identifier>00000000-0000-0000-0000-000000000000</Identifier>
      <Document>
        <Format>HL7</Format>
        <Name>MCM:FDIS91#[<code>]</Name>
        <Version>1.0</Version>
        <SizeInBytes>0</SizeInBytes>
      </Document>
      <Transport>
        <Type>reliable</Type>
        <TransformMessage>>false</TransformMessage>
      </Transport>
    </MetaInformation>
    <Data>ZGVmYXVsdA==</Data>
  </Message>
</VANSEnvelope>
```

*[<code>] erstattes af værdier fra næste side

VANSenvelope - CareCommuncation

Code	Display	Visning i statistik (dansk)
outpatient	Outpatient	Ambulant
decease	Decease	Dødsfald
carecoordination	Care Coordination	Forløbskoordinering
assistive-devices	Assistive Devices	Hjælpe midler
medicine	Medicine	Medicin
psychiatry-social-disability	Psychiatry, Social, Disability	Psykiatri, social, handicap
alcohol-and-drug-treatment	Alcohol and drug treatment	Rusmiddelbehandling
healthcare	Healthcare	Sundhedspleje
nursing	Nursing	Sygepleje
telemedicine	Telemedicine	Telemedicin
training	Training	Træning
discharge	Discharge	Udskrivelse
regarding-referral	Regarding Referral	Vedr. henvisning
assessment	Assessment	Visitation
examination-results	Examination Results	Undersøgelses svar
other	Other	Andet

Touchstone

HospitalNotification - DRAFT



test scope

- Use cases
- Code/status combinations

Dansk tekst	Engelsk tekst	Encounter.Class	Encounter.Status	Encounter.hospitalization.dischargeDisposition	Provenance.activity
sygehusophold- akut ambulant	Start hospital stay-acute ambulant	emergency	in-progress	N/A	admit-emergency
Use af Start sygehusophold-ambulant	Update of start hospital stay-acute ambulant	emergency	in-progress	N/A	revise-admit-emergency
Udløring af start sygehusophold-ambulant	Cancellation of start hospital stay- acute ambulant	emergency	cancelled/entered in error	N/A	cancel-admit-emergency
sygehusophold - indlagt	Start hospital stay-admission	inpatient	in-progress	N/A	admit-inpatient
Use af start sygehusophold - indlagt	Update of start hospital stay-admission	inpatient	in-progress	N/A	revise-admit-inpatient
Udløring af start sygehusophold - indlagt	Cancellation of start hospital stay-admission	inpatient	cancelled/entered in error	N/A	cancel-admit-inpatient
Start orlov	Start leave	inpatient	on-leave	N/A	start-leave-inpatient
Use af Start orlov	Update of Start leave	inpatient	on-leave	N/A	revise-start-leave-inpatient
Udløring af Start orlov	Cancellation of Start leave	inpatient	in progress	N/A	cancel-start-leave-inpatient
End orlov	End leave	inpatient	in progress	N/A	end-leave-inpatient
Use af Slut orlov	Update of End leave	inpatient	in progress	N/A	revise-end-leave-inpatient
Udløring af Slut orlov	Cancellation of End leave	inpatient	on-leave	N/A	cancel-end-leave-inpatient
sygehusophold- afsluttet til hjemmepleje	End hospital stay- patient discharged to home care	emergency/visiting	discharge	home care	discharge-Encounter Class

Test Scripts

https://touchstone.aegis.net/touchstone/testdefinitions?selectedTestGrp=/FHIRSandbox/MedCom/FHIR4-0-1&activeOnly=false&contentEntry=TEST_SCRIPTS

The screenshot displays the 'Test Definitions' page for the group '/FHIRSandbox/MedCom/FHIR4-0-1'. The interface includes a sidebar on the left with navigation options like 'Conformance', 'Test Executions', and 'Test Definitions'. The main area shows a table of test scripts with columns for Name, Version, History, Description, Content, Tests, Validator, Editor, Upload Time, Viewable By, and Writable By. There are four test scripts listed, all with a version of 1 or 2 and a description related to testing the correct use of status admit-inpatient.

Name	Version	History	Description	Content	Tests	Validator	Editor	Upload Time	Viewable By	Writable By
<input type="checkbox"/> Test Script										
<input type="checkbox"/> /FHIRSandbox/MedCom/FHIR4-0-1/HospitalNoti-rece/Userstory/US_H_V_2/US_H_V_2_K1-xml	2		Testing correct use of status admit-inpatient	XML	1	FHIR 4.0.1 Medcom	Anders Jensen	01/10/2021 01:11:27PM	Everyone	Org: MedCom
<input type="checkbox"/> /FHIRSandbox/MedCom/FHIR4-0-1/HospitalNoti-rece/Userstory/US_H_V_2/US_H_V_2_K3-xml	2		Testing correct use of status admit-inpatient	XML	1	FHIR 4.0.1 Medcom	Anders Jensen	01/10/2021 01:11:27PM	Everyone	Org: MedCom
<input type="checkbox"/> /FHIRSandbox/MedCom/FHIR4-0-1/HospitalNoti-sent/Userstory/US_H_V_1/US_H_V_1_S1-xml	1		Testing correct use of status admit-inpatient	XML	1	FHIR 4.0.1 Medcom	Anders Jensen	01/10/2021 01:11:27PM	Everyone	Org: MedCom
<input type="checkbox"/> /FHIRSandbox/MedCom/FHIR4-0-1/HospitalNoti-sent/Userstory/US_H_V_1/US_H_V_1_S3-xml	1		US_H_V_1_S1 Testing correct use of status discharge-emergency-home	XML	1	FHIR 4.0.1 Medcom	Anders Jensen	01/10/2021 01:11:27PM	Everyone	Org: MedCom

Test Suites



<https://touchstone.aegis.net/touchstone/conformance/current?suite=FHIR4-0-1-HospitalNotification-sent-Client>

<https://touchstone.aegis.net/touchstone/conformance/current?suite=FHIR4-0-1-HospitalNotification-receiving-Client>

Running Test

Test Scripts

Execute Selected Refresh Search: Total:2 Previous 1 Next Show 5 entries

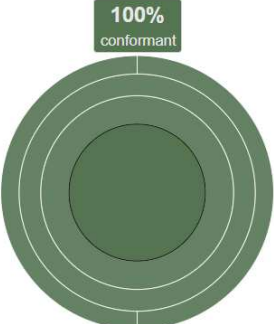
<input type="checkbox"/>	Test Script	Status	Start Time	End Time	Interactions	By	Org
<input type="checkbox"/>	/FHIRSandbox/MedCom/FHIR4-0-1/HospitalNoti-sent/Userstory/US_H_V_1/US_H_V_1_S1-xml Testing correct use of status admit-inpatient	Execute Passed	01/11/2021 09:26:45AM	01/11/2021 09:26:55AM	<div style="width: 100%; height: 10px; background-color: green;"></div>	andersvndor	testXcollaboration
<input type="checkbox"/>	/FHIRSandbox/MedCom/FHIR4-0-1/HospitalNoti-sent/Userstory/US_H_V_1/US_H_V_1_S3-xml US_H_V_1_S1 Testing correct use of status discharge-emergency-home	Execute Passed	01/11/2021 09:28:07AM	01/11/2021 09:29:33AM	<div style="width: 100%; height: 10px; background-color: green;"></div>	andersvndor	testXcollaboration

Execute Selected Refresh Search: Total:2 Previous 1 Next Show 5 entries

Test - Progress

Conformance Type: **FHIR-Client** Suite: **FHIR4-0-1-Hospitalnotification-sent-Client v10** Client: **testXcollaboration - ClintVendorMed** Format: **All** Support

[Refresh](#)



100%
conformant

Test Scripts

[Execute Selected](#) [Refresh](#) Search: Total:2 [Previous](#) **1** [Next](#) [Sho](#)

<input type="checkbox"/> Test Script	Status	Start Time	End Time	Interactions	By
<input type="checkbox"/> /FHIRSandbox/MedCom/FHIR4-0-1/HospitalNoti-sent/Userstory/US_H_V_1/US_H_V_1_S1.xml Testing correct use of status admit-inpatient	Execute Passed	01/11/2021 09:26:45AM	01/11/2021 09:26:55AM	<div style="width: 100%; height: 10px; background-color: green;"></div>	andersver
<input type="checkbox"/> /FHIRSandbox/MedCom/FHIR4-0-1/HospitalNoti-sent/Userstory/US_H_V_1/US_H_V_1_S3.xml US_H_V_1_S1 Testing correct use of status discharge-emergency-home	Execute Passed	01/11/2021 09:28:07AM	01/11/2021 09:29:33AM	<div style="width: 100%; height: 10px; background-color: green;"></div>	andersver

[Execute Selected](#) [Refresh](#) Search: Total:2 [Previous](#) **1** [Next](#) [Sho](#)

/FHIR4-0-1/HospitalNoti-sent

Interactions

	100% passed	Pass	Fail	Other	Total
Summary	<div style="width: 100%; height: 10px; background-color: green;"></div>	2	0	0	2
Userstory <input checked="" type="checkbox"/>	<div style="width: 100%; height: 10px; background-color: green;"></div>	2	0	0	2

Roadmap for EDifact-udfasning

FHIR-meddelelser og Migreringsstrategi

Odense d. 11/1-2021

Michael Johansen, chefkonsulent for standardteam

mjo@medcom.dk



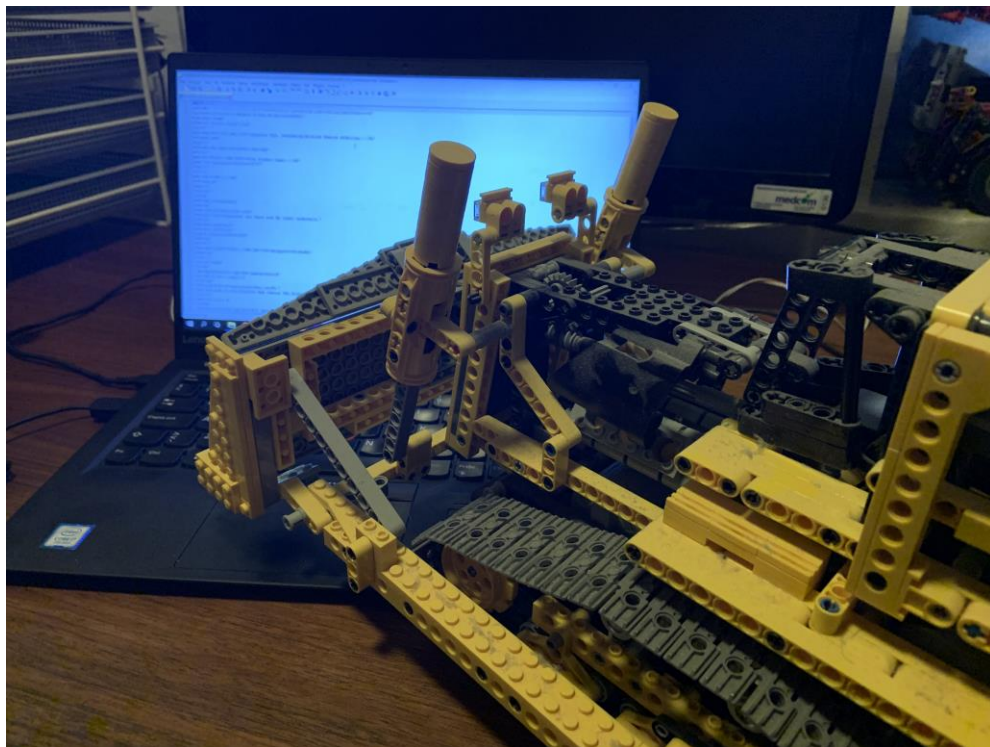
Roadmap for EDIfact udfasning

- Valg af omlægningen
 1. Teknisk omlægning, kun med minimale ændringer
 - Letter en migreringsstrategi med mapning
 2. Omlægning inkl. sundhedsfaglig revidering
 - Indfri ønskede forretningsmæssige behov
- MedComs roadmap anbefaler et antal bølger
 - Bølgens varighed afhænger af omlægningsvalg
- Flere samtidige formater er dyrt, så migrer hurtigt
- Første opgave i MedCom12 er fastlæggelse af bølgelængde
 - Ikke alle bølger behøves have samme bølgelængde



Bølger med samhørende standarder

- Advis og korrespondance
- Henvisning, epikrise/afslutningsnotat
- Lab. rekvisition/svar
- Kommune/sygehus kommunikation
- Afregning (og øvrige standarder)
- Udvekslingsformater
- Opsamling



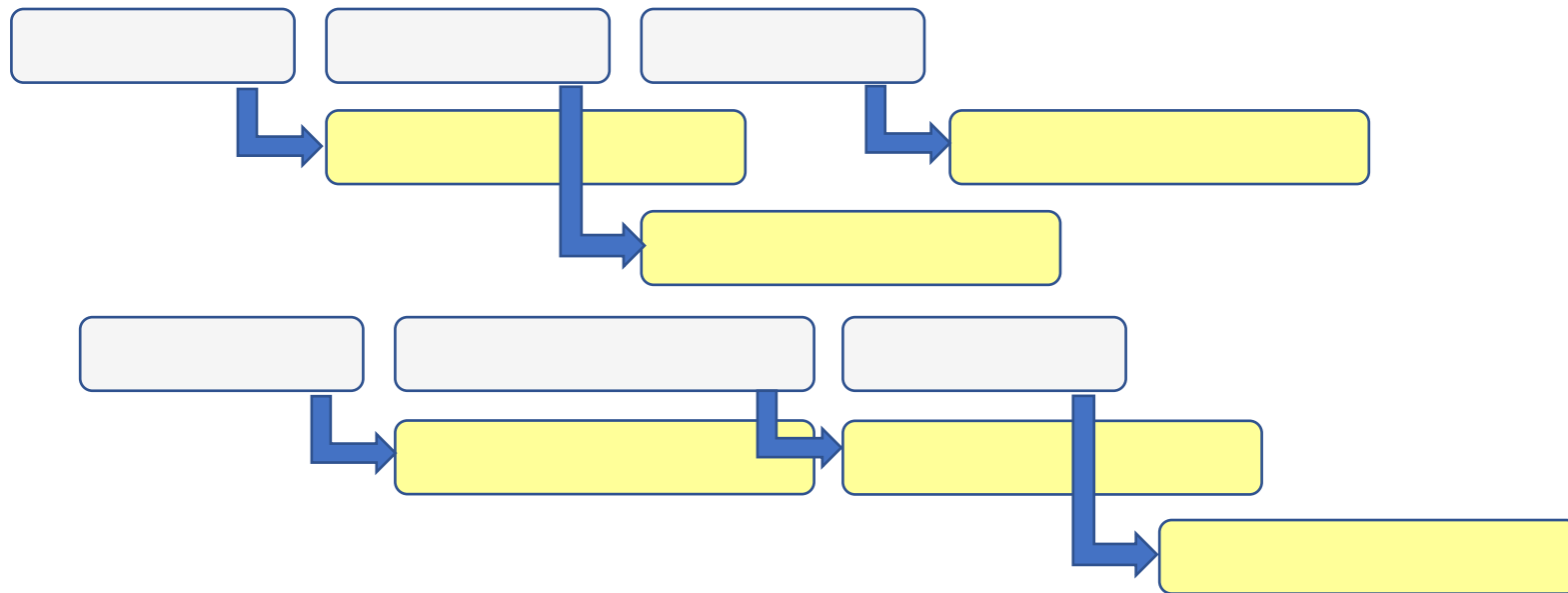
Tidsplan for en bølge

- Kan udarbejdelse ske hurtigt?
 - Hovedpart af standarder har behov for revidering
 - Prioritering
 - Høring
 - Koordinering
 - Udarbejdelse tager et år
- Kan implementering kortes ned fra nuværende 12-18 måneder?

4 Sundhedsfaglig revidering	ma 01-02-21	ma 31-05-21
Opstartsmøde med input fra MedComs behovskatalog	ma 01-02-21	sø 28-02-21
Input fra arbejdsgruppen og baglandet	ma 01-03-21	on 31-03-21
Behandling og afklaring (vurdere alternativer)	to 01-04-21	fr 30-04-21
Opsamling og konklusion	lø 01-05-21	ma 31-05-21
4 Review	ti 01-06-21	on 30-06-21
Prioritering med systemejere, og national koordinering	ti 01-06-21	on 30-06-21
Høring hos leverandører (og andre parter)	ti 01-06-21	on 30-06-21
4 Standard udarbejdelse	sø 01-08-21	sø 12-12-21
Modellering om international koordinering	sø 01-08-21	ti 31-08-21
Dokumentation	on 01-09-21	sø 31-10-21
Oversættelse (fra dansk til engelsk)	ma 01-11-21	ti 30-11-21
Godkendelse i RUSA og publicering	on 01-12-21	sø 12-12-21
4 Standard implementering	lø 01-01-22	fr 30-06-23
Projektorganisering og opgavestart	lø 01-01-22	ma 31-01-22
Estimering og prioritering ind i lokale roadmap	ti 01-02-22	ma 28-02-22
Systemudvikling og test	ti 01-03-22	lø 31-12-22
Udrulningsplan	sø 01-01-23	ti 31-01-23
Idriftsættelse	on 01-02-23	fr 30-06-23

Roadmap for EDIfact udfasning – Roadmap puslespil

- Det tager nok et antal MedCom projektperioder (parallele udarbejdelser kan konflikte)



FHIR-meddelelser og Migreringsstrategi

Odense d. 11/1-2021

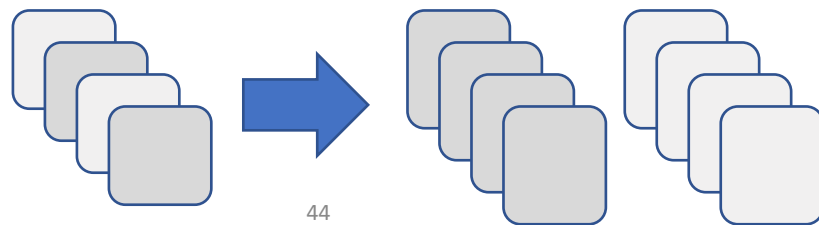
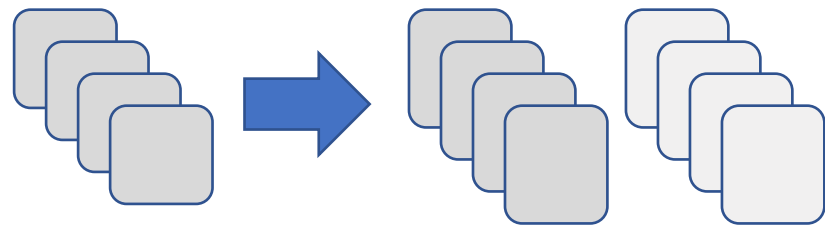
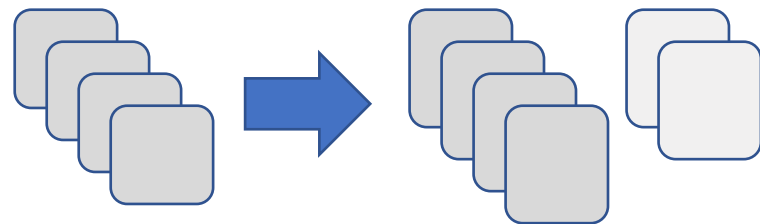
Michael Johansen, chefkonsulent for standardteam

mjo@medcom.dk



MedComs implementeringsmodel

- Alle modtagere gør sig klar, i deres tempo
- Derpå skifter afsenderne, i deres tempo
- Udfordringer
 - Afsendere må afvente sidste modtager
 - Modtager skal understøtte to versioner indtil sidste afsender har skiftet



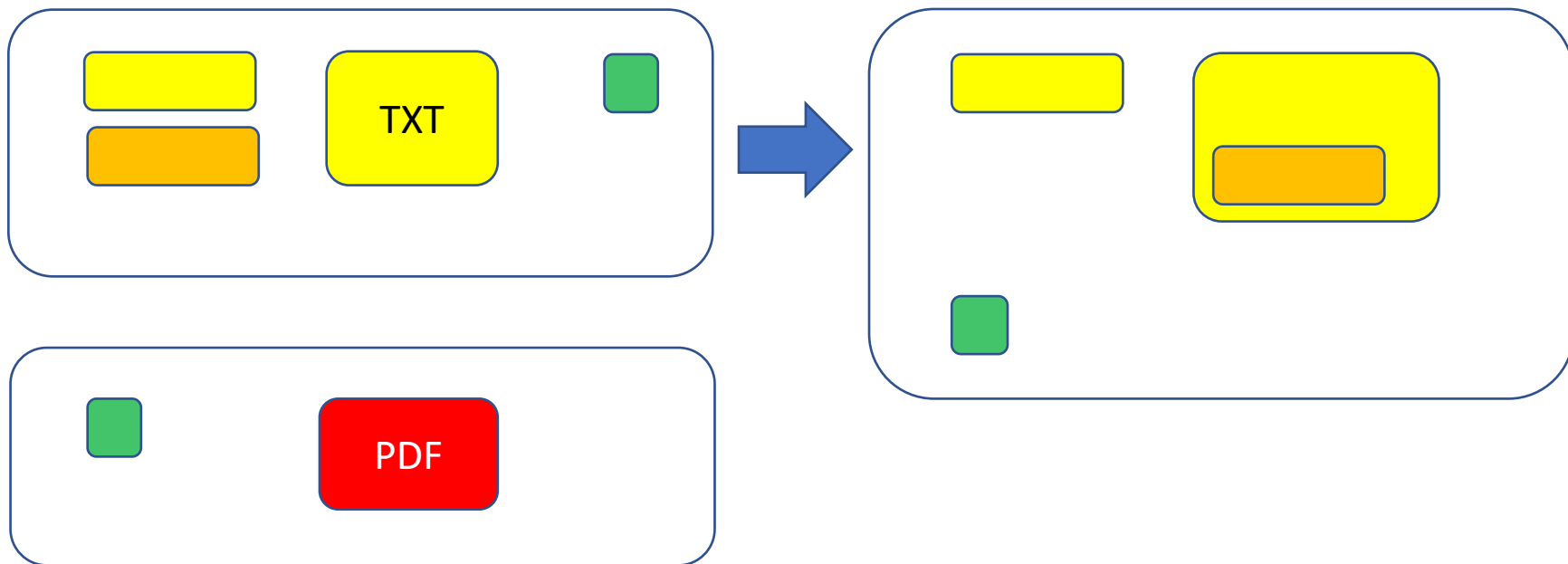
Klassiske migreringsstrategier

1. Konverteringsløsning, der enten lokalt eller centralt sikrer en oversættelse mellem EDifact og HL7/FHIR. konverteringen besværliggøres markant, hvis der åbnes op for indholdsmæssige ændringer i standarderne.
2. Etablering af en central "MedCom-online" løsning, hvor samarbejdspartnere på en web-grænseflade kan tilgå og igangsætte MedCom kommunikation, indtil FHIR-standarderne er implementeret i eget journalsystem.
 - Når FHIR-meddelelse ikke kan modtages, læses oplysninger på webgrænsefladen.
3. Etablering af central opslagsløsning, hvor afsenders journalsystem automatisk kan hente information om, hvilket format (EDifact eller FHIR) den konkrete modtager understøtter, hvorved alle parter i en overgangsperiode skal kunne afsende i både EDifact og FHIR-format, og de enkelte parter successivt implementere modtagelse af FHIR-format.
 - Overvejelse om SOR kan anvendes
4. Big Bang

1) Mapning

- Dette er løsningen hvor afsender kun kan afsende én version
- Understøtte mapning fra EDifact til FHIR
 - Burde være muligt, skønt kategori ikke sættes optimalt
 - Ikke 1:1
- Understøtte mapning fra FHIR til EDifact
 - Burde være muligt, skønt nogle ekstra oplysninger tilføjes i halen på brødtekst
 - Ikke 1:1
- Særskilt komplicerende ved vedhæftede bilag (medbin)
 - Man kan angive at bilag forefindes, men det er ikke tilgængeligt

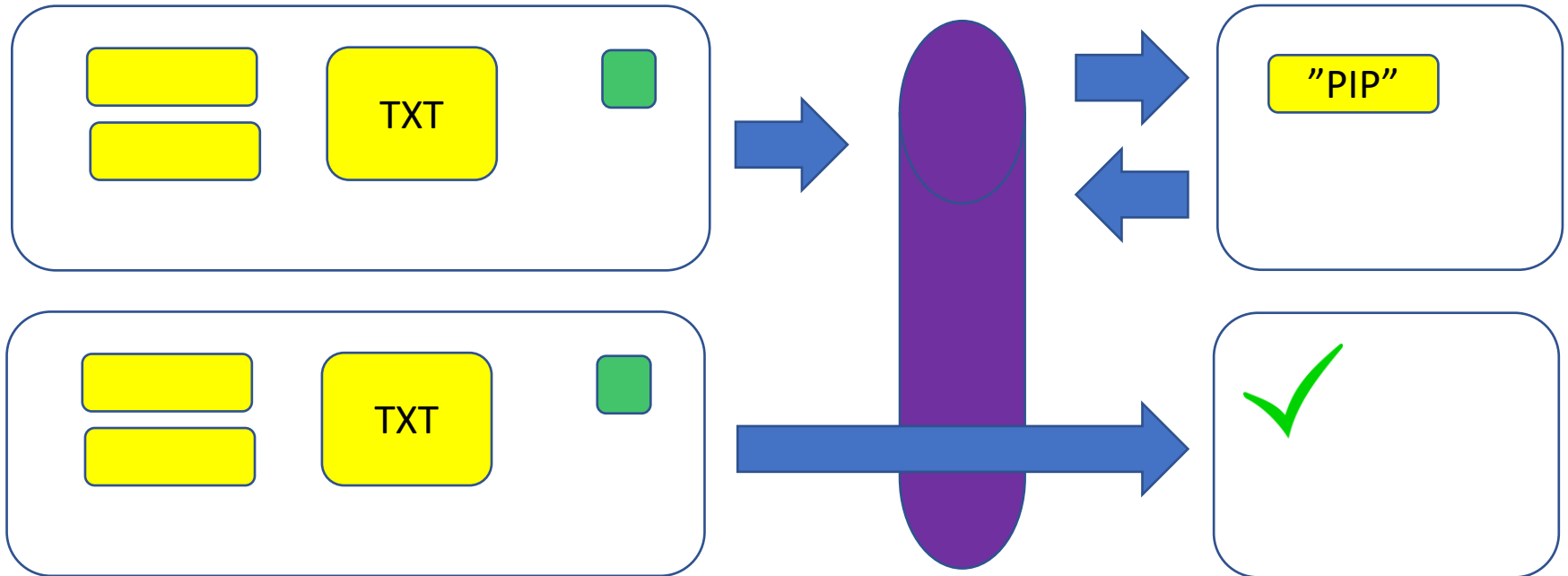
Mapning (ikke 1:1 – som ved EDifact/OIOXML)



2) Central meddelelsesplatform

- Dette er en løsning hvor afsender skifter til ny version uden hensyntagen til modtagersystem
- Nogle modtagere understøtter ikke ny version
 - Her kan man vælge at sende en KM som notifikation
 - Modtager må logge på central platform og læse den meddelelse man ikke kan modtage
 - Bør man sende en positiv kvittering fra platformen (meddelelse er jo ikke læst)?
Det vil være misvisende at sende en negativ kvittering.
- Nogle afsendere understøtter ikke ny version
 - Sender gamle versioner
 - Modtagere skal understøtte begge versioner i en overgang (hvor lang er overgang?)
- Central platform skal etableres
 - Er det i forbindelse med moderniseret infrastruktur?

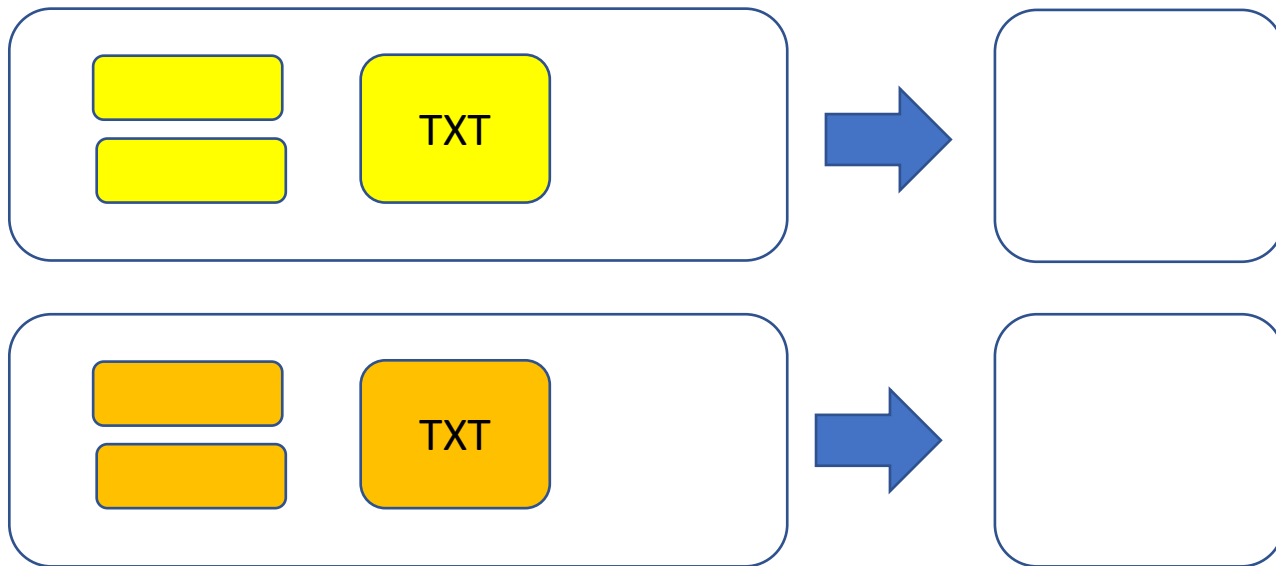
Central platform (modtager der ikke er first-mover)



3) Fordeling ud fra central opslagsværk

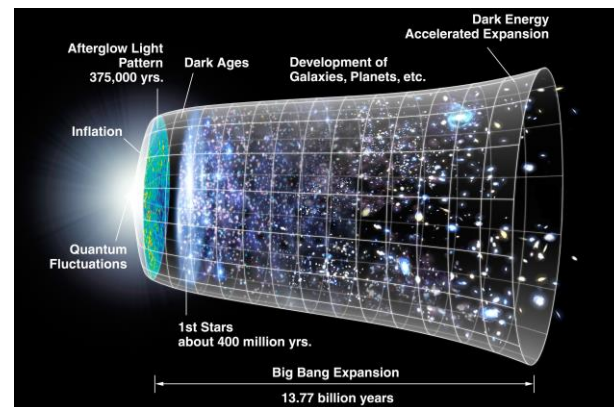
- Dette er løsningen hvor afsendersystemer kan sende forskellige version
 - Hvilken version modtageren får, fremgår af central register
 - SOR-EDI
 - SMP fra eDelivery
- Denne løsning pålægger afsender den største udviklingsopgave
 - Belønner ikke first-movers

Fordeling (af afsender)



4) Big Bang

- Meget svært at realisere, fordi alle afsender og modtage skal være enige om én skæringsdato
- Kan anvendes for udvalgte meddelelsetyper
 - Typisk et forberedt mini "Big Bang"
 - Modtagersystemerne udvikles over en periode, hvorpå afsenderne skifter ved fælles skæringsdato
 - Alle modtagere gør sig i stand til at modtage både gammel og ny version
 - Herpå skifter alle afsendere samme dato
 - Den gamle version udfases
 - Kun anvendelig ved få afsendersystemer og få modtagersystemer



Drøftelse

1. Mapping
 - Tab af data er ikke en mulighed
2. Central meddelelsesplatform
 - De røde tråde tabes
 - Modtagere skal notificeres
 - Moderniseret infrastruktur er ikke klar
3. Fordeling ud fra central register
 - Firstmovers straffes
 - Afsendere skal understøtte to versioner
 - SOR-EDI har mangler og eDelivery er ikke klar
4. Big Bang



Migreringsforslag

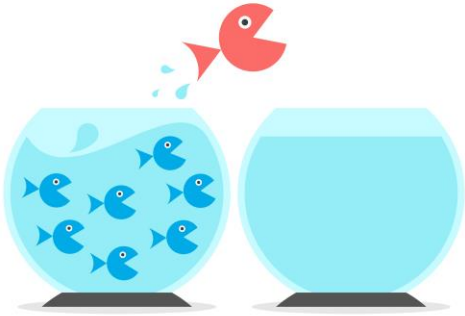
- Mapning (1) for korrespondancemeddelelse
 - Firstmovers belønnes
 - Etablering af central mappe-service
 - Bør langsom afsender få mappet om? (MedBin -> FHIR KM med bilag)
 - Bør langsom modtager få vedhæftede bilag?
 - Mappe-service returnere flere meddelelser
- "Big Bang" (4) for avis om sygehusophold
 - Modtagere implementerer over en periode
 - Kommer til at understøtte to versioner
 - Afsendere skifter herpå samtidigt



Information on the need to collect schedules / roadmaps
from
IT suppliers, regions, municipalities, practice area
relating to
technical development and expected implementation of
'CareCommunication' and 'Hospital-Notification'

Dorthe Skou Lassen, MedCom



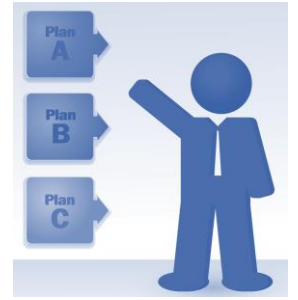


From 2021 to 2022-2023

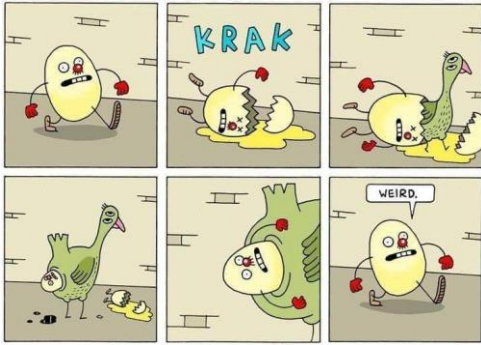
Technical and organizational implementation

Meeting between roadmaps & agreements

Ready to use the 2 new standards



Lots of information to put together = co-decision/collective plan



MedCom plan +
release version
1.0

Compare
roadmaps
Organizational
& technical
preparations

Schedule for
certification

Technical
implementation
/release

In operation -
Organizational
use

Evaluation

Local agreements & schedules
National implementation plan



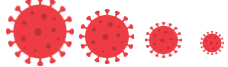
Data collection for schedule so that implementation can be agreed and determined

Who	Hospital-Notification	Care Communication	Certification YYYY-MM-DD	Technical implementation YYYY-MM-DD	Organizational use YYYY-MM-DD
4 EOJ suppliers * 98 municipalities *	X	X	?	?	?
7 PLS Medical System Lev. * PL forum 3,275 doctors *				?	?
5 Regions * Approx. 47 hospitals *	X	X	?	?	?
KOMBIT message distributor	X		?	?	?
Private hospitals	?			?	?
Private specialists, Pharmacies , Dentists, Physiotherapist, Chiropractors, Psychologists, Podiatrists				?	?

Roadmaps & agreements

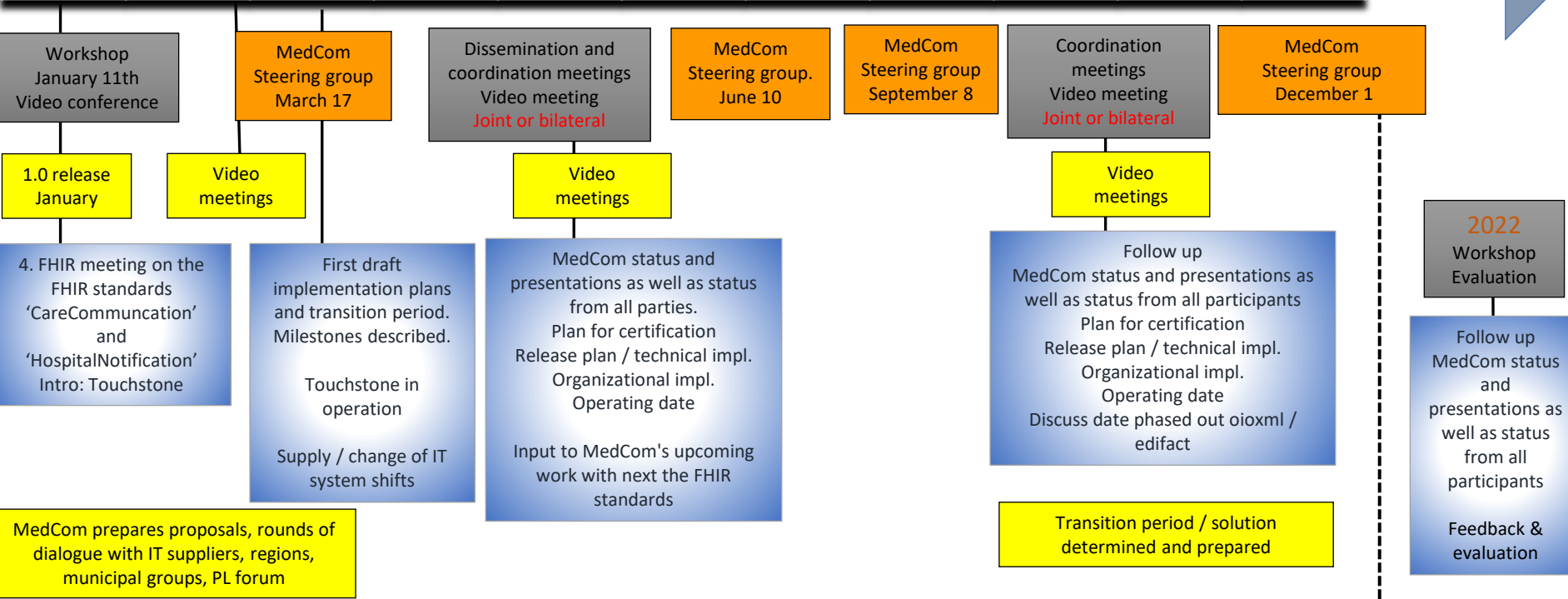
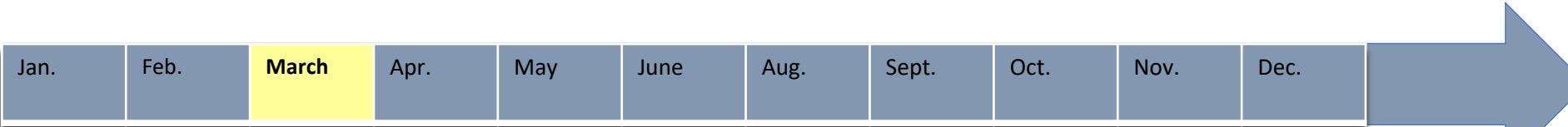
Mapping in detail - what is the need?

* Makes up approx. 95% of correspondence messages



DRAFT

FHIR standards - preparation 2021



Roadmaps & agreements - data collection

DRAFT

We know a little about the regions' plans but we need to

Start the dialogue about specific roadmaps & implementation plans with all participant

- The regions
- Health agreement and other agreements – let us know if you want MedCom as a part of the dialogue
- The IT suppliers - including implementation plans for the municipalities and GP
- PL forum & KKR digitalization network

Send written inquiry around February 1, 2021

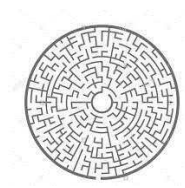
- Mail, video conference & telephone feedback February - bilateral

Suggestions for follow up video meetings

- May - June 2021 - jointly / regionally
- August - jointly / regionally

We may need different schedules

- How long will the transition period be?
- Different schedules per standard
- East & West Denmark and/or per region
- General practitioners / municipalities as frontrunners?
 - MedCom will take contact



Thank you

