

## **Annotation guidelines for annotation of temporal information related to medications in CRIS notes**

Part of CRIS approved project 18-067 and 19-070

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### **Annotation task:**

1. Determine time references and attributes for medications in CRIS documents
2. Please annotate all mentions of a medication (even if there are multiple references in the same document)

### **Medication attributes**

Information for attributes will be derived from the sentence or span in question, not from the rest of the document.

For each annotated medication, please add the following prescription attributes:

- Drug: the name of the drug in the prescription
- Frequency: represents the number of times the dose is taken in the dose interval (2 in “twice a day”)
- Interval: is the time interval to which the dose frequency applies (1 in “twice a day”)

{Additional examples for Frequency and Interval:

Once a day – Frequency is 1, Interval is 1;

3 times a day – Frequency is 3, interval is 1;

Once every 4 days – Frequency is 1, interval is 4.}

- Dose value: 200 in “200mg”
- Dose unit: mg in “200mg”

Note: In instances of dose changes such as “patient on clozapine 250mg to be increased to 500mg...” – this should incorporate two annotation spans. The first span will include “clozapine 250mg” and the second span will include “clozapine 250mg to be increased to 500mg” i.e. the entire span including the previous one.

- Route: oral, IV...
- When: at night, morning...

For each medication annotation, we also consider the following temporal attributes:

1. Initiation:
  - Possible values: Current, past or future

- Did the patient start this medication in the past, or does the medication start now (or even in the future)?
2. Initiation\_time: the specific time
    - Possible values: exact date, vague date in any given time granularity
    - Default: unknown
    - Date formats:
      - Full date: DD/MM/YYYY Ex: 25/02/2015
      - Partial date: Mon YYYY Ex: Feb 2016
      - Year: YYYY Ex: 2014
      - Ranges: Mon YYYY – Mon YYYY Ex: Jun 2009 – Sep 2010
  3. Cessation:
    - Possible values: Current, past or future
    - Did the medication stop in the past, is it stopping now, or will it stop in the future?
  4. Cessation\_time: the specific time
    - Possible values: exact date, vague date in any given time granularity
    - Default: unknown
    - Date formats:
      - Full date: DD/MM/YYYY Ex: 25/02/2015
      - Partial date: Mon YYYY Ex: Feb 2016
      - Year: YYYY Ex: 2014
      - Ranges: Mon YYYY – Mon YYYY Ex: Jun 2009 – Sep 2010
  5. Subject:
    - Possible values:
      - Patient - when the medication refers to the patient;
      - Other - when the medication refers to a relative/parent etc.
    - Default: patient
  6. Modality
    - Possible values:
      - taken\_by\_patient - when the medication is being taken by the patient, including overdose and side-effects, with clear indication that the patient has taken the medication;
      - not\_taken\_by\_patient - refers to allergy information/ hypothetical discussions of medications/ anything else that suggests that the patient did not take the medication
    - Default: taken\_by\_patient

Below you can find a screenshot with all possible attributes for each annotated medication.

Editor

**Annotation Attributes**

Attribute Name	Attribute Value
1_INITIATION	---
1_INITIATION_time	unknown
2_CESSATION	---
2_CESSATION_time	unknown
Modality	Taken_by_patient
Subject	Patient
dose_unit	
dose_value	
drug	
frequency	
interval	
route	
when	

Situation	Initiation	Cessation
Patient was on a medication in the past and is not on it anymore	Past	Past
Patient was started on a medication in the past and is still on it	Past	-
Patient was started on a medication in the past and it is being stopped now	Past	Current
Patient was started on a medication in the past and it is planned to be stopped in x months or after a fixed duration	Past	Future
Patient is being prescribed a medication indefinitely	Current	-
Patient is being prescribed a medication one time only (For example, they were given something to calm them down at that time)	Current	Current
Patient is being prescribed a medication and it is planned to be stopped in x months or after a fixed duration	Current	Future
Plan made to start patient on a medication in the future	Future	-

Plan made to prescribe patient on a medication for a fixed duration in the future	Future	Future
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**Important: if you have any doubt please add a comment**

## Frequently Asked Questions

- Should the following be annotated?
  - Mentions of recreational drugs such as weed etc. – No
  - Mentions of alcohol use – No
  - Mentions of the word “medication” or “drug” – No
  - Generic mentions such as “painkillers”, “laxatives”, “IV fluids”, “antipsychotics”, “antidepressants” – Yes. Comment as “Generic mention” if possible.
  - Vaccinations – No
  - Mentions of overdose – Yes. Comment as “overdose” if possible.
- In a situation where a blood test was done to check levels of a particular medication, should the medication be annotated? – Yes, probably with a comment about it being regarding blood test levels of the drug. Comment as “Blood test mention” if possible.

## Annotation tool

To run the annotation tool, go to the folder:

T:\Natalia Viani\annotation\_prescription

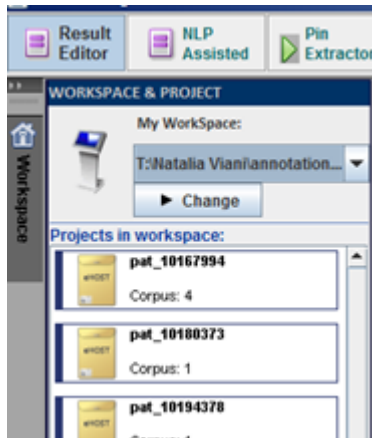
Then select the folder with your name and move to the ehost-mk5.1 folder.

Name ^	Date modified	Type
config	22/11/2018 14:07	File folder
early_services	22/11/2018 14:07	File folder
ehost-mk5.1	22/11/2018 14:07	File folder
first_referrals	23/05/2019 11:56	File folder

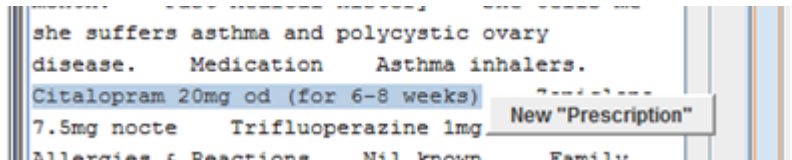
Here you will find an Executable file called ehost-mk5.1. You can run the tool with a double-click on this.


Name ^	Date modified	Type
lib	22/11/2018 14:08	File folder
eHOST.sys	22/11/2018 14:10	SYS File
eHOST-mk5.1	18/12/2017 15:31	Executable Jar File

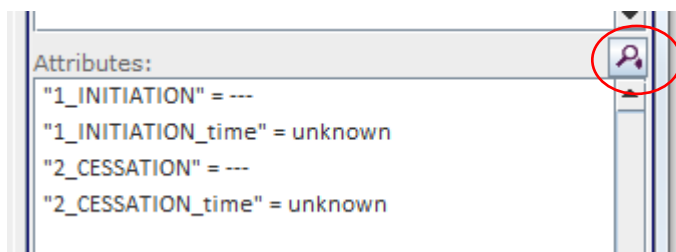
You will find the list of patients that has been assigned to you on the left (this is the first batch of patients).



When you select one patient (double-click on the folder name), the list of documents associated to him/her is displayed. Once a document is selected (double-click on the document name), you can mark the PRESCRIPTION by selecting the text you would like to annotate:



Finally, you can change the value of the different attributes by clicking on the  symbol in the "Attributes" window (bottom-right).



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