Reviewer’s report

Title: Longitudinal pharmacoepidemiological and health services research for substance users in treatment: protocol of the Belgian TDI-IMA linkage

Version: 0 Date: 04 Oct 2017

Reviewer: Catharina Matheï

Reviewer's report:

This paper describes the protocol that was followed to allow linkage between the Treatment Demand Indicator Database, a database containing information about people entering drug treatment and the Intermutualistic Database, a database containing information on the use of reimbursed medication and health services. Furthermore it explains how it may facilitate the understanding of care pathways of people with a substance disorder.

The topic is undoubtedly relevant. Not only will this linkage allow in depth analysis of the trajectories of people with a substance use disorder in terms of health service use in Belgium, it may also inspire other countries to do the same which would make comparisons in terms of health care use among people who use drugs on the European level possible.

I have no major remarks. I would like, however, make some suggestions that may improve the readability of the paper.

Background

Line 45

* I am not sure what is men by the sentence "Data are focusing… redemption sin pharmacies".

Lines 48-49

* This sentence seems in contradiction with the next sentence which mentions that "other EU countries also developed databases following an integrated approach"

Line 90

The use of health services by instead of
Methods/Design

Lines 98-99

* Please explain briefly the case definition by Antoine and colleagues

Lines 101-104

* By giving the definition of an episode the reader might get the impression that episodes are registered while in fact - at least that is how I understand it - only the start of an episode is registered and no information is available about the duration of the episode. This should be mentioned explicitly.

Line 110-117

* This piece of information is partly repeated in the section "Registration and collection of variables" and could be moved entirely to that section.

Lines 118-147

* Perhaps a new subtitle can be inserted since this section is not really about case definition anymore.

Line 158

* "the fact that the patient was already in treatment for substance use disorders before" might be replaced by "history of previous treatment for substance use disorders"

Line 159

* "and" should be a comma

Lines 175-177

* this sentence is not clear to me
Analysis and reporting
Lines 200-201
* I believe this information should be moved to the section where linkage is described

Lines 231-233
* I don't find this information in table 2.

Discussion
Lines 243-245
* Please add a reference

Line 249 and elsewhere
* The term "people who use drugs" (PWUD) is preferable to "drug users"

Line 250
* "needs" should be "conditions" of "diseases".

Line 254
* risk of infections instead of "on"

Line 279-280
* plus prescribed but not reimbursed drugs eg benzodiazepines

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field
Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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