A new tool to share clinical experiences on DDIs management

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"Lluita contra la sida" Foundation

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Germans Trias i Pujol Hospital

Institut Català de la Salut

IGTP

Germans Trias i Pujol Research Institute

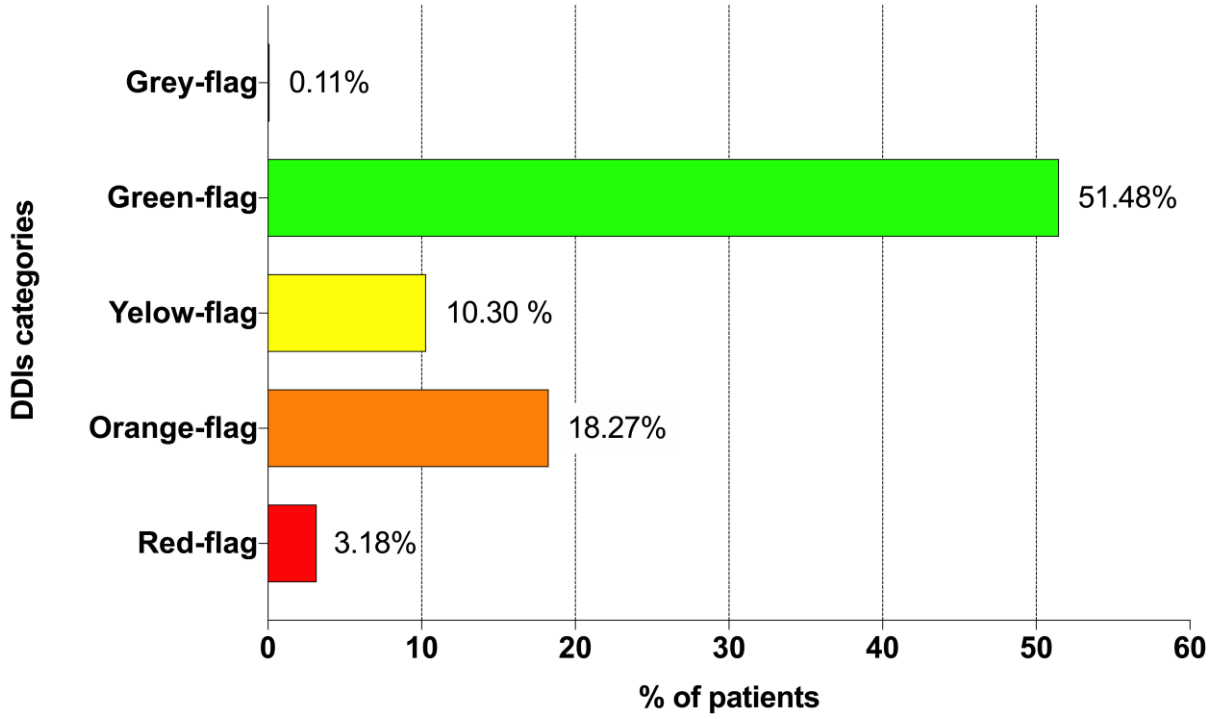
FUNDACIÓ LLUITA CONTRA LA SIDA

Disclosure Information

I have received research funding, consultancy fees, and lecture sponsorships from and have served on advisory boards for various laboratories (MSD, Abbvie, Boehringer Ingelheim, Gilead Sciences, Viiv Healthcare, Janssen Cilag, and Bristol-Myers-Squibb).

Drug interactions of ART still matter in 2020

Prevalence of DDIs in HIV-infected individuals (N = 22,945)



Grey-flag = no data to indicate interaction.

Green-flag = non clinically significant interaction.

Yellow-flag = weak potential interaction: no require additional monitoring or dosage adjustment.

Orange-flag = potential interaction: require dosage modification or close monitoring.

Red-flag = contraindicated.

López-Centeno B, etal. Clin Infect Dis 2019

Management of DDIs in clinical practice

Complete / centralized medication history

Including OTC, supplements, recreational drugs, etc.

Critical review of the therapeutic plan

Search for information on DDIs

Electronic databases on DDIs

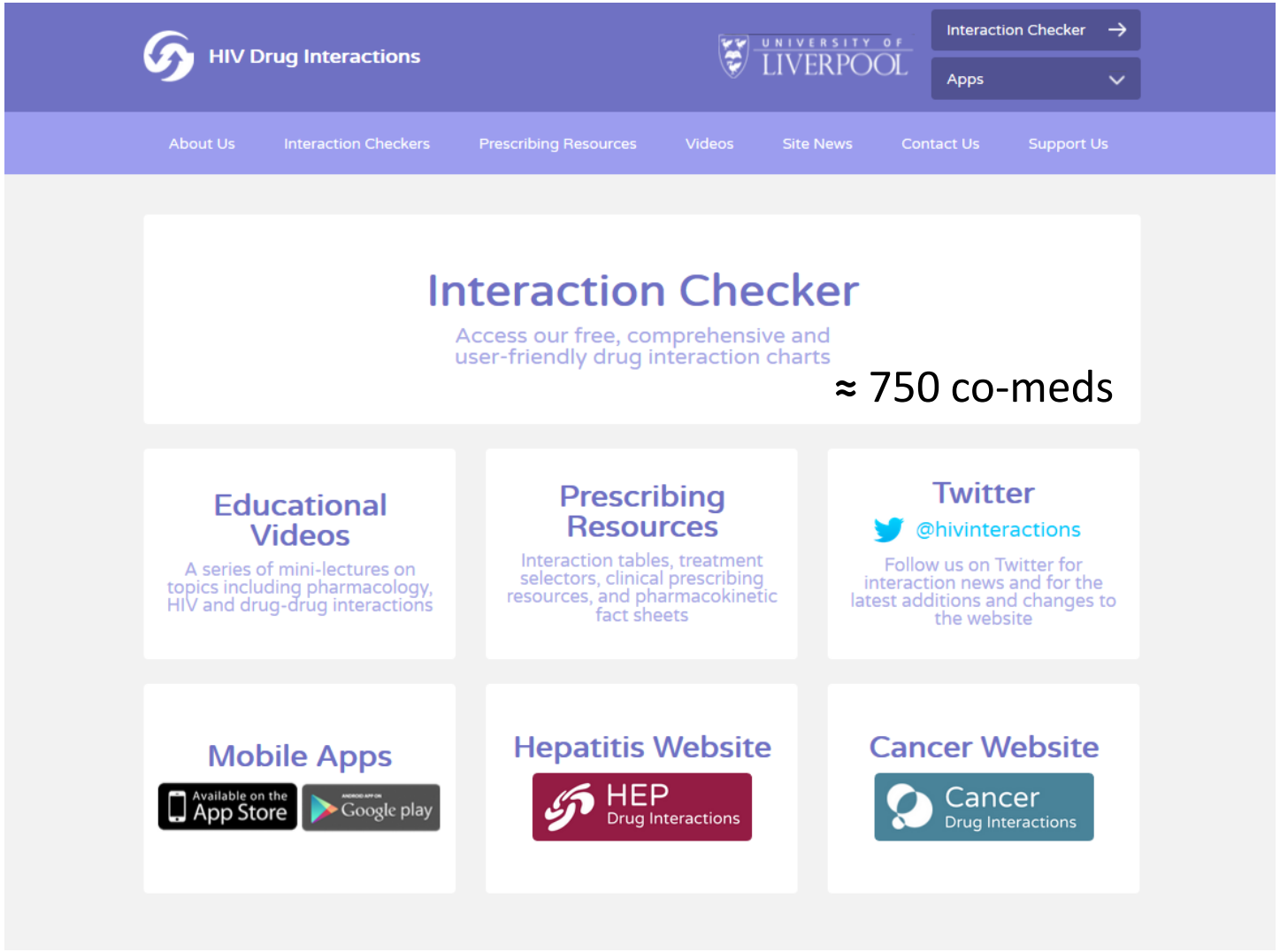
Websites on DDIs

https://www.hivmedicationguide.com/

https://reference.medscape.com

https://hivclinic.ca/drug-information/drug-interaction-tables/

http://hivinsite.ucsf.edu/InSite.jsp?page=ar-00-02



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Suboptimal dosing due to concern of DDI

- >50% of patients (n=549) failed to achieve target lipids – evidence of suboptimal dosing of statin due to concern of DDI.

  (Myers J, et al. HIV Med 2018; 13:190–192)

- 55% of patients (n=82) had plasma antidepressant and/or antipsychotic drug levels below target (sub-therapeutic) – due to concern of DDI.

  (Cattaneo D, et al. World J Biol Psychiatry. 2018)

Beyond interaction checkers

- Most potential drug-drug interactions have not been studied.
- Classical website recommendations are based on theoretical considerations.

  Based on enzymes/transporters involved in PK

- Sometimes co-administration of two drugs cannot be avoided.

  Even if no recommended in prescribing information

Some examples….

- Patient with HIV & CAD on rtv-containing ART (multi-R). Suboptimal LDL depite atorvastatin 20 mg QD (cardiologist recommends increasing ator to 40 mg QD).

- Patient on BIC/F/TAF & refractory epilepsy despite levetiracetam (neurologist recommends adding eslicarbazepine).

- Patient on INSTI-based ART & gym supplements containing divalent cations.

- Patient on rtv/cobi-containing ART & psychiatric condition on quetiapine.

www.clinicalcasesDDIs.com

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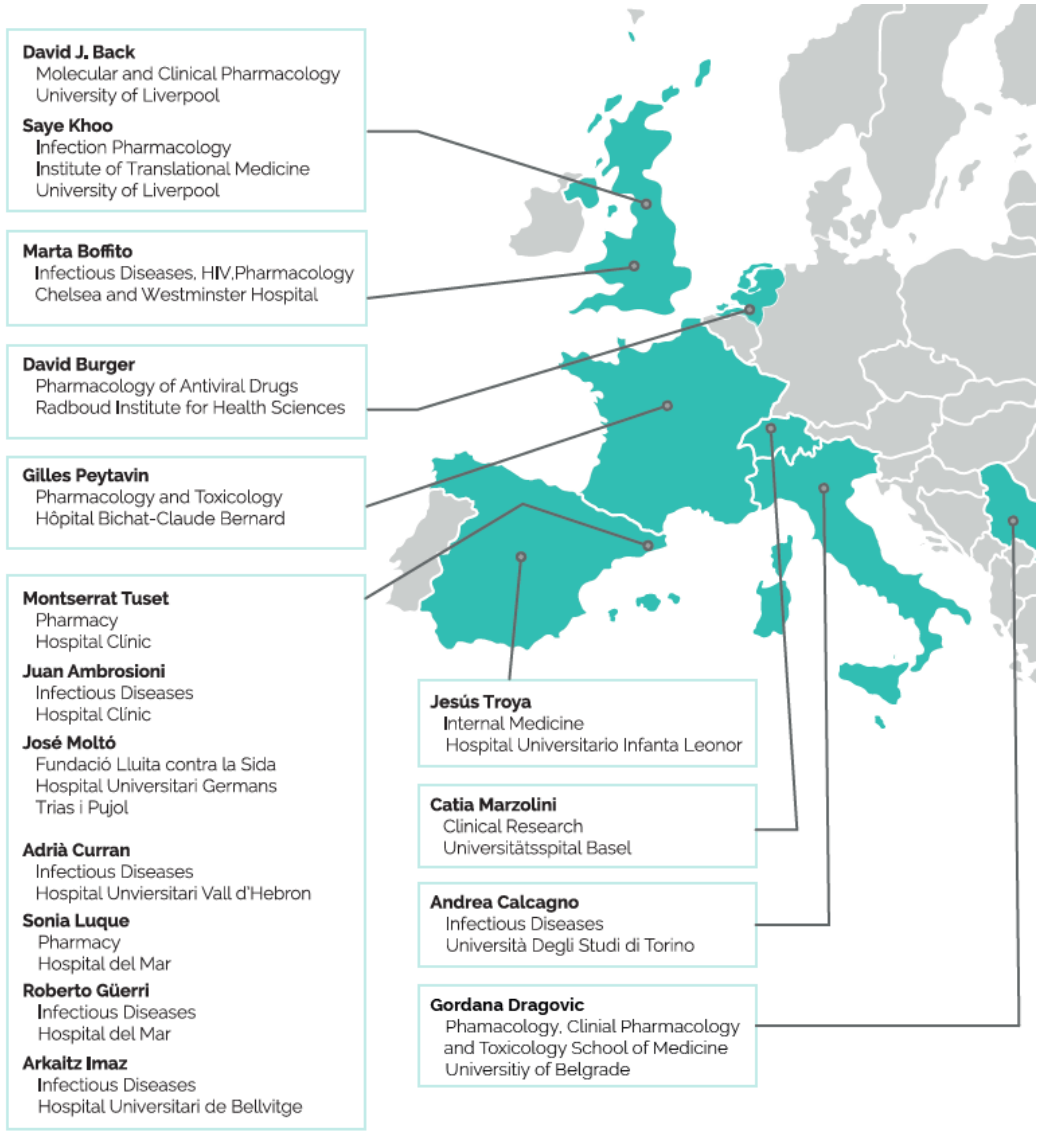
- Web-based tool where you will be able to:
  1. **CONSULT**: Real cases of patients similar to the one you are interested in with real outcomes
  2. **NOTIFY**: Your own case, so that the HIV community can benefit from your experience.

- Adequate reporting guaranteed by an International Editorial Board

www.clinicalcasesDDIs.com
Editorial board



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REPORT A NEW CASE

Report

SEARCH FOR ONE DRUG COMBINATION

DDIs between ARV and comedications

DDIs between comedications

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Home / Search ARV DDI

Antiretroviral treatment

Select which ARV drugs you are interested in

Type which comedication/substance you are interested in

If this comedication is not in the list this means that there are not reported any cases involving this drug

Search

Add

Last reported clinical cases between ARVs and comedications

Legend: P=Perpetrator V=Victim

	date	ARV involved	Comedication	Dose adjustment	Outcome
details	10 Dec 2019	Ritonavir (P)	Nebivolol (V)	-	No unwanted outcome
details	10 Dec 2019	Cobicistat (P)	Red Yeast Rice (Monacolin) (V)	-	No unwanted outcome
details	06 Dec 2019	Cobicistat (P)	Quetiapine (V)	Yes	Toxicity
details	26 Nov 2019	Ritonavir (P)	Solifenacin (V)	-	Toxicity
details	31 Oct 2019	Cobicistat (P)	Paclitaxel (V)	Yes	No unwanted outcome

Drugs suspected to be involved in the DDI

Drug A
Ritonavir (Perpetrator)

Daily Dose	Dose adjustment performed	Administration Route
200 (mg)	No	Oral

Start date	End date
Feb. 8, 2016	Ongoing

Drug B
Nebivolol (Victim)

Daily Dose	Dose adjustment performed	Administration Route
5 (mg)	No	Oral

Start date	End date
Jan. 15, 2018	Ongoing

Complete list of drugs taken by the patient

Antiretroviral treatment
Darunavir (with Ritonavir or Cobicistat)
Emtricitabine/Tenofovir-DF
Raltegravir

Complete list of all comedications taken by the patient, included that involved in the DDI
Nebivolol, VIII factor

Clinical case description

Gender	Age	eGFR (mL/min)	Liver function impairment
Male	49	>60	No

Description
49-year-old man with history of hemophilia A, HIV infection diagnosed in 1990 and HCV infection, achieving sustained virologic response after treatment. Highly ART-experienced, currently on ART with TDF/FTC (300/200 mg qd) + DRV/r (600/100 mg bid) + RAL (400 mg bid) since 2016. Undetectable viral load, CD4+ T cells 790/mm3. His cardiologist prescribed nebivolol 2.5 mg qd a year ago due to hypertension and the dose was further increased up to 5 mg qd. Although coadministration of darunavir + ritonavir with nebivolol has not been studied we could expect an increase in nebivolol concentrations due to CYP2D6 metabolism of this drug. The patient has been receiving DRV/r and nebivolol for a year with successful control of blood pressure and no evidence of adverse effects.

Outcome

No unwanted outcome

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details	31 Oct 2019	Cobicistat (P)	Paclitaxel (V)	Yes	No unwanted outcome

There are 5 clinical cases including any of the components of and Quetiapine in our database.

Reported clinical cases involving ARVs and Quetiapine

Legend: P=Perpetrator V=Victim

	date	ARV involved	Comedication	Dose adjustment	Outcome
details	21 Jun 2019	Cobicistat (P)	Quetiapine (V)	Yes	Toxicity
details	21 Jun 2019	Cobicistat (P)	Quetiapine (V)	-	No unwanted outcome
details	28 Jun 2019	Cobicistat (P)	Quetiapine (V)	-	No unwanted outcome
details	21 Oct 2019	Cobicistat (P)	Quetiapine (V)	-	No unwanted outcome
details	06 Dec 2019	Cobicistat (P)	Quetiapine (V)	Yes	Toxicity

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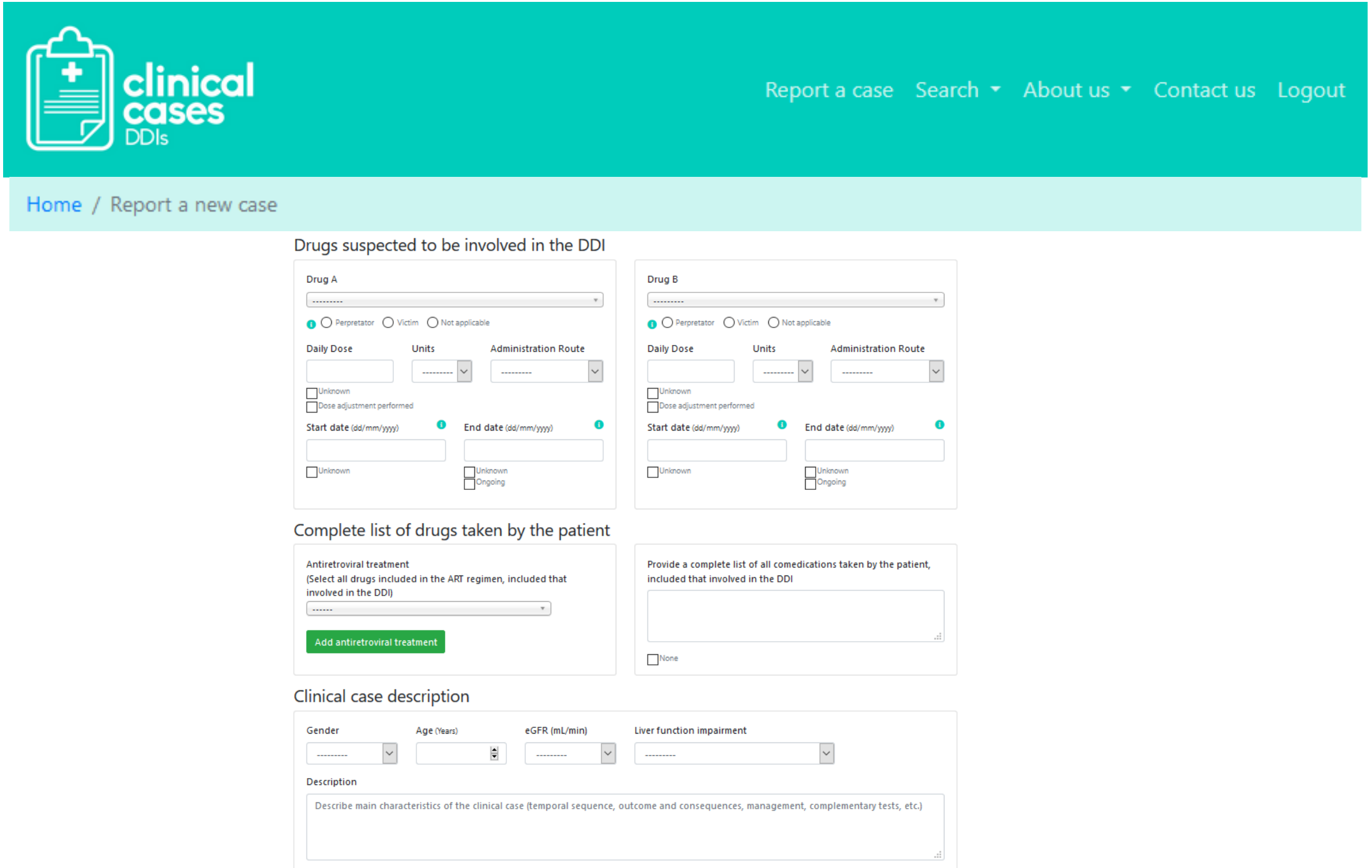
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Drugs suspected to be involved in the DDI
Drug A

Perpretator
Victim
Not applicable
Daily Dose
Units
Administration Route

Unknown
Dose adjustment performed
Start date (dd/mm/yyyy)
End date (dd/mm/yyyy)
Unknown
Unknown
Ongoing
Drug B

Perpretator
Victim
Not applicable
Daily Dose
Units
Administration Route

Unknown
Dose adjustment performed
Start date (dd/mm/yyyy)
End date (dd/mm/yyyy)
Unknown
Unknown
Ongoing
Complete list of drugs taken by the patient
Antiretroviral treatment
(Select all drugs included in the ART regimen, included that involved in the DDI)

Add antiretroviral treatment
Provide a complete list of all comedications taken by the patient, included that involved in the DDI
None
Clinical case description
Gender
Age (Years)
eGFR (mL/min)
Liver function impairment

Description
Describe main characteristics of the clinical case (temporal sequence, outcome and consequences, management, complementary tests, etc.)

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5 reasons why you should report a case on Clinical Cases DDIs now

STRAIGHT FORWARD

Reporting a case will not take much of your time. You will only have to fill in the questionnaire and submit it.

YOU WILL OBTAIN 1 CME CREDIT BY EACCME

For each case you report you will get 1 CME credit for medical specialists from the European Accreditation Council for Continuing Medical Education.

INTERNATIONAL WORKSHOP ON CLINICAL PHARMACOLOGY

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Reporting a case involves generating knowledge and sharing it with your colleagues, which will enrich the general knowledge about drug interactions in PLWH.

YOUR CASE WILL RECEIVE VISITS AND WILL BE SHARED ON SOCIAL NETWORKS

By reporting a case to our website, you will be receiving visits to your work and it will be shared on social networks.

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Report a case and get a chance to get a free registration for the 21st Antiviral PK Workshop, New York, 13-15 May 2020, organized by Virology Education.

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A new tool to share clinical experiences on DDIs

- Complementary information to that available in other websites.
- Information clinically meaningful (real clinical cases).
- Share your experience with other colleagues.
- Contribute to create a body of evidence on DDIs in the clinical setting.

Thank you!

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