PHARMACOLOGICAL INTERACTIONS REGISTERED WITH THE USE OF NEW DIRECT ACTING ANTIVIRAL AGENTS FOR TREATMENT OF HEPATITIS C VIRUS.

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The direct-acting antiviral agents (DAA) may present a high percentage of pharmacological interactions and may compromise the effectiveness and safety of these treatments.

PURPOSE: To describe the pharmacological interactions registered between home treatment and DAA for treatment of hepatitis C virus. To analyse the therapeutic groups involved and to assess the acceptance of pharmaceutical recommendations.

MATERIAL AND METHODS:

- A descriptive study was conducted since January to September 2015. Patients treated with DAA and active home treatments were included.
- Demographic data, pharmacological interactions and the acceptance of the pharmaceutical recommendations were collected.
- The interactions were consulted in European Public Assessment Report (EPAR), hep-druginteractions and micromedex®.
- The pharmaceutical recommendations were classified:
"**A":**These drugs should not be coadministered.
"**B":**Potential interaction: may require close monitoring, alteration of drug dosage or timing of administration.
"**C":** No clinically significant interaction expected.

RESULTS:

A total of 143 patients were included (98 men), and 359 pharmacological interactions were consulted.
Most were no clinically significant interaction **"C"** 238 (66.3%), but 90(25%) were **"B"**:potential interaction and 31(8.7%) were **"A"**: interaction where it was recommended not to coadminister.
The pharmaceutical recommendations, therapeutic groups involved and DAA are shown in the table:

Recommendations A: 31(8.7%)	
Therapeutic groups	**DAA**
Antirretroviral:**27/31**	Sofosbubir/ Simeprevir:**4** Sofosbubir/Daclatasvir:**23**
Proton pump inhibitors:**2/31**	Sofosbubir/ Simeprevir:**2**
Opioids:**1/31** Endothelin receptor antagonist:**1/31**	OBV/PTV/r + Dasabuvir:**1** Sofosbubir/ Simeprevir:**1**

*OBV/PTV/r: Ombitasvir/Paritaprevir/ritonavir.

Recommendations B: 90 (25%)	
Antirretroviral:**8/90**	Sofosbubir/ Simeprevir:**3** Sofosbubir/Daclatasvir:**5**
Benzodiazepines:**13/90**	Sofosbubir/ Simeprevir:**9** OBV/PTV/r + Dasabuvir:**4**
Beta-blockers:**10/90**	Sofosbubir/ Simeprevir:**6** Sofosbubir/Daclatasvir:**1** OBV/PTV/r + Dasabuvir:**3**
Calcium antagonists: **9/90**	Sofosbubir/ Simeprevir:**6** Sofosbubir/Daclatasvir:**1** OBV/PTV/r + Dasabuvir:**2**
Renin-angiotensin system inhibitors:**8/90**	Sofosbubir/ Simeprevir:**2** OBV/PTV/r + Dasabuvir:**6**
Statins and Fibrates:**8/90**	Sofosbubir/ Simeprevir:**8**
Sulphonylurea:**5/90**	Sofosbubir/ Simeprevir:**4** OBV/PTV/r + Dasabuvir:**1**
Proton pump inhibitors:**2/90**	OBV/PTV/r + Dasabuvir:**1** Sofosbuvir/Ledipasvir:**1**
Other: Corticoids, Antiplatelet, Neuroleptic, Endothelin receptor antagonists, antiepileptic,antiarrhythmics,SSRI, 5 alpha-reductase inhibitor, Prokinetics, bisphosphonates **27/121**	

CONCLUSIONS:

- The DAA reported high percentage of pharmacological interactions, but most did not need pharmaceutical recommendations.The majority of them were "B", only a small percentage were "A". The recommendation given were accepted and implemented.
- The antiretroviral treatments present the most possibility interactions, was still necessary a comprehensive individual treatments review.
- The pharmacist is crucial to detect and report the pharmacological interactions and define the recommendations to follow.