HEPATITIS C TREATMENT

	DIRECT-ACTING AGENTS				OLDER TREATMENTS	
	Ledipasvir + Sofosbuvir (Harvoni)	Ombitasvir/ Paritaprevir/r +/-Dasabuvir (Holkira, Technivie)	Sofosbuvir (Sovaldi)	Daclatasvir (Daklinza)	Pegylated Interferon alpha 2a	Ribavirin
INTEGRASE INHIBITORS						
• DOLUTEGRAVIR (Tivicay, Triumeq)	√	√	√	√	√	√
• ELVITEGRAVIR/COBICISTAT (Stribild, Genyova)	⚠ Potential: ↑ Tenofovir	X Potential increase in elvitegravir or paritaprevir	√	⚠ Potential: ↑ Daclatasvir Reduce dose to 30 mg daily	√	√
• RALTEGRAVIR (Isentress)	√	√	√	√	√	√
PROTEASE INHIBITORS (PI)						
RITONAVIR (Norvir) or cobicistat-boosted PIs, e.g.: • ATAZANAVIR (Evotaz, Reyataz) • DARUNAVIR (Prezcobix, Prezista) • LOPINAVIR (Kaletra)	⚠ Potential: ↑ Tenofovir	X Ok with ATV 300 mg and possibly unboosted DRV but TDM of ARV levels highly suggested	√	⚠ ↑ Daclatasvir with boosted atazanavir; Reduce dose to 30 mg daily √ (darunavir, lopinavir)	√	√

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NON-NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITORS (NNRTI)						
• EFAVIRENZ (Atripla, Sustiva)	⚠ ↑ Tenofovir when using Atripla	X	√	⚠ ↓ Daclatasvir Increase dose to 90 mg daily	√	√
• ETRAVIRINE (Intelence) • NEVIRAPINE (Viramune)				X Etravirine and nevirapine ↓ Daclatasvir Levels +++		
• RILPIVIRINE (Edurant, Complera)	⚠ ↑ Tenofovir when using Complera	X ↑ Rilpivirine ++ Potential QT prolongation	√	√	√	√

	DIRECT-ACTING AGENTS				OLDER TREATMENTS	
	Ledipasvir + Sofosbuvir (Harvoni)	Ombitasvir/ Paritaprevir/r +/-Dasabuvir (Holkira, Technivie)	Sofosbuvir (Sovaldi)	Daclatasvir (Daklinza)	Pegylated Interferon alpha 2a	Ribavirin
NUCLEOTIDE REVERSE TRANSCRIPTASE INHIBITORS (NRTI)						
• TENOFOVIR DISOPROXIL (Viread, Truvada, Atripla, Stribild, Complera)	⚠ ↑ Tenofovir	√	√	√	√	√
• OTHER NRTIs e.g:. ABACAVIR (Ziagen or Kivexa), LAMIVUDINE, EMTRICITABINE, ZIDOVUDINE (Retrovir, Combivir)	√	√	√	√	√ Abacavir and Tenofovir and FTC and 3TC ok	
• ZIDOVUDINE (Retrovir, Combivir)	√	√	√	√	X Zidovudine Didanosine Stavudine	

HEPATITIS C TREATMENT

Mechanism of Drug Interactions, Management and Monitoring

	LEDIPASVIR + SOFOSBUVIR (HARVONI)	OMBITASVIR/PARITAPREVIR/R +/-DASABUVIR (HOLKIRA PAK) (TECHNIVIE)	DACLATASVIR (DAKLINZA)	PEGYLATED INTERFERON ALPHA 2A & RIBAVIRIN
MECHANISM OF INTERACTION	Ledipasvir is a mild inhibitor of PgP, BCRP, OATP1B1 and OATP1B2	Ritonavir boost already present. Combinations with CYP, PgP inhibitors and inducers will lead to unpredictable drug levels for all	Substrate of P-glycoprotein and CYP3A4	
MAIN INTERACTING ARVs	Boosted PIs, elvitegravir/cobicistat and NNRTIs when combined with tenofovir Increased tenofovir levels can potentially lead to renal toxicity	PIs, Efavirenz /Nevirapine Rilpivirine	Cobicistat PIs NNRTIs	Contraindicated with zidovudine due to increased toxicity
MANAGEMENT**	If pre-existing renal compromise, consider switching to non-tenofovir backbone or regimen. Otherwise, monitor renal function closely	Avoid with all boosted PIs or integrase inhibitors boosted with ritonavir or cobicistat. Avoid with all NNRTIs Best to combine with dolutegravir or raltegravir based regimens	Adjust daclatasvir dose accordingly. Best combined with dolutegravir-, raltegravir- or rilpivirine-based regimens.	

	LEDIPASVIR + SOFOSBUVIR (HARVONI)	OMBITASVIR/PARITAPREVIR/R +/-DASABUVIR (HOLKIRA PAK) (TECHNIVIE)	DACLATASVIR (DAKLINZA)	PEGYLATED INTERFERON ALPHA 2A & RIBAVIRIN
MONITORING**	Monitor renal function when used with tenofovir: eGFR, serum creatinine and phosphate; urine creatinine and phosphate if assessing tubular damage	If adding unboosted atazanavir or darunavir, suggest measuring antiretroviral concentrations		

NOTES

√ No dose adjustment required.

⚠ Use combination with caution. Adjustment in drug dose or frequency, additional/more frequent monitoring, or use of an alternative agent may be required. May wish to consult with a pharmacist knowledgeable in HIV drug interactions.

X Contraindicated/avoid combination.

A MANAGEMENT TOOL FOR HIV DRUG-DRUG INTERACTIONS

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