HCV

CLINICAL MANAGEMENT RESOURCE

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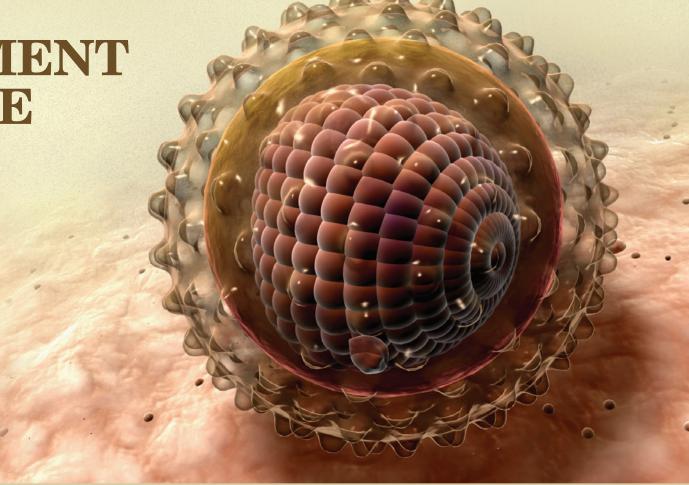
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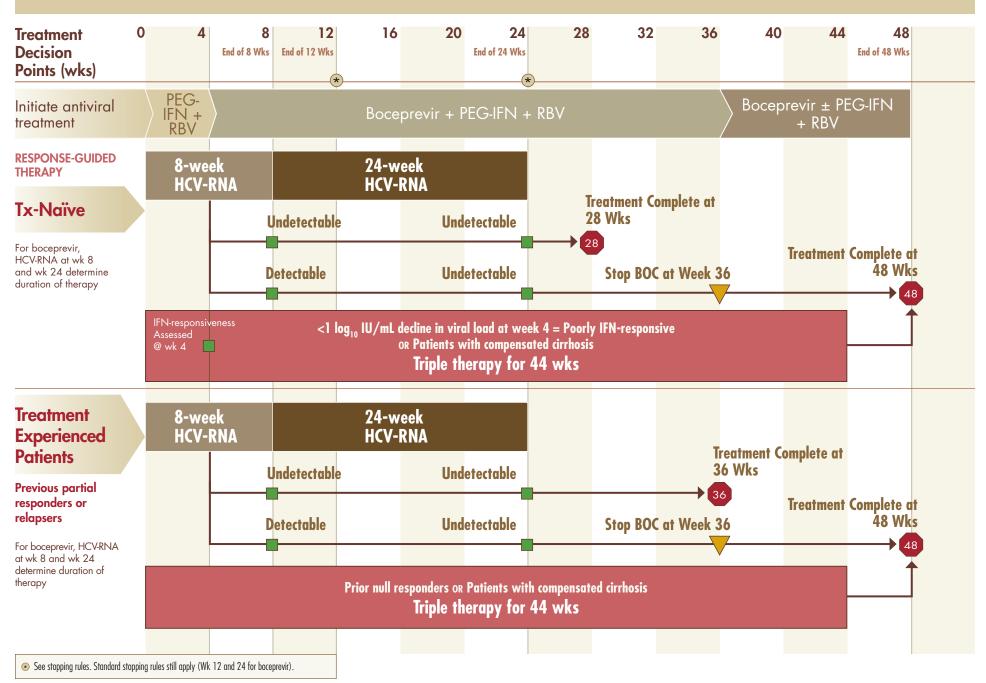






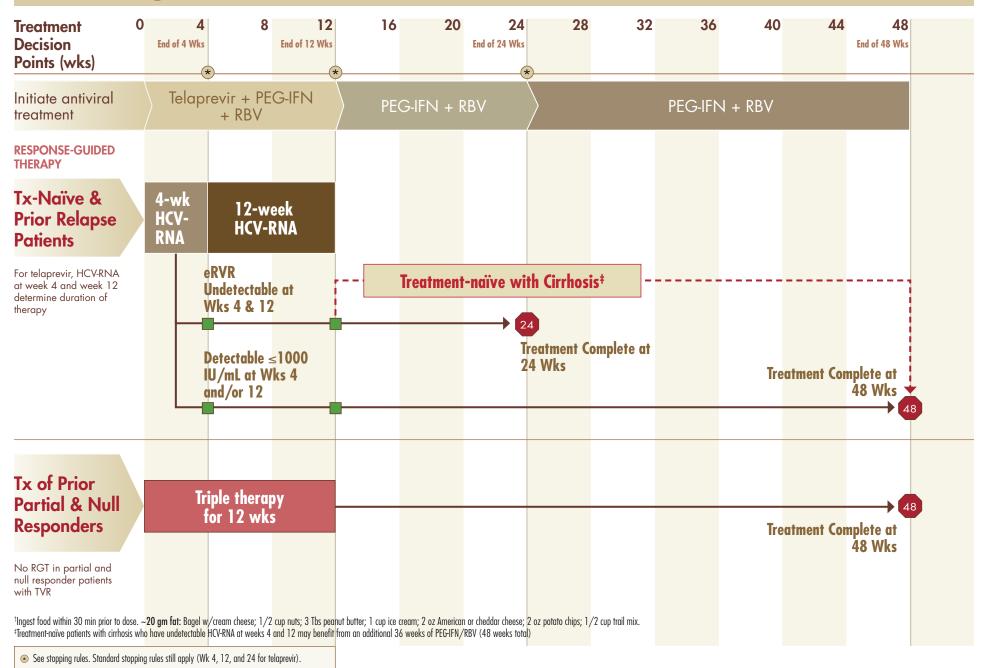
Boceprevir: Treatment Algorithms

Chronic HCV Genotype 1, boceprevir 800 mg (four 200 mg capsules) orally 3 times daily (7-9 hrs apart) with food



Telaprevir: Treatment Algorithms

Chronic HCV Genotype 1, telaprevir 750 mg (two 375 mg tablets) orally 3 times daily (7-9 hrs apart) with food (~ 20 gm fat[†])



STOPPING RULES

Boceprevir

Timepoint	Criteria for Stopping	Action
Week 12	HCV-RNA ≥100 IU/mL	Discontinue BOC/PEG-IFN/RBV
Week 24	Confirmed, detectable HCV-RNA	Discontinue BOC/PEG-IFN/RBV

Telaprevir

Timepoint	Criteria for Stopping	Action	
Week 4 or 12	HCV-RNA >1000 IU/mL	Discontinue TVR/PEG-IFN/RBV	
Week 24	HCV-RNA detectable	Discontinue PEG-IFN/RBV	

References

Boceprevir capsules [package insert]. Whitehouse Station, NJ: Merck & Co., Inc.; 2011. Telaprevir tablets [package insert]. Cambridge, MA: Vertex Pharmaceuticals Incorporated; 2011. Peginterferon alfa-2a Solution for Subcutaneous Injection [package insert]. South San Francisco, CA: Genentech, Inc.; 2011.

Peginterferon alfa-2b Injection, Powder for Solution for Subcutaneous Use [package insert]. Kenilworth, NJ: Schering Corporation; 2011.

University of Liverpool. Drug Interaction Charts. http://www.hep-druginteractions.org/Default.aspx. Accessed July 6, 2011.

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SIDE EFFECT MANAGEMENT

Anemia Management Recommendations with PI-based Therapy

- Monitoring: CBC pretreatment, every 2 weeks until treatment week 8, then monthly
- Primary strategy: RBV dose reductions
 - \cdot BOC—Hgb < 10 g/dL: decrease in dosage or interruption of RBV is recommended
 - TVR—If anemia occurs, use RBV dose reductions; if inadequate, consider D/C TVR
- Hgb <8.5 g/dL: discontinue all therapy
- If RBV is permanently D/C, BOC or TVR also must be D/C
- Do not reduce PI dose to manage anemia
- Once RBV dose reduction has been tried, erythropoietin can be considered

Rash Management Plan: Telaprevir

Mild rash: Localized rash and/or a rash with limited distribution, with or without pruritus

Moderate rash: Diffuse rash, with or without superficial skin peeling, or mucous membrane involvement, with no ulceration

Severe rash: Generalized rash with or without pruritus OR rash with vesicles, bullae, or ulcerations

Serious skin reactions: Stevens-Johnson syndrome (SJS) OR drug rash with eosinophilia and systemic symptoms (DRESS)

Rash Description	Management
Mild to moderate rashes	 Continue all drugs Monitor for rash progression or development of systemic symptoms TVR dose should not be reduced or interrupted Oral antihistamines and/or topical corticosteroids Systemic corticosteroids are not recommended Good skin care practices*
Severe rash	 Discontinue TVR Continue PEG-IFN/RBV If no improvement within 7 days (or earlier if indicated), consider D/C of PEG-IFN and/or RBV Good skin care practices* Oral antihistamines and/or topical corticosteroids Systemic corticosteroids are not recommended TVR dose should not be reduced or interrupted Consider dermatology consult
Serious skin reactions (SJS or DRESS)	Discontine all medications immediatelyRefer for urgent medical care

^{*}Good skin care practices: limit sun exposure, wear loose-fitting clothing, use oatmeal or baking soda baths, apply moisturizers at least twice daily after bathing, laundry with mild, unscented detergents.

HCV PROTEASE INHIBITORS DRUG INTERACTIONS

	Boceprevir	Telaprevir
Analgesics	Восоргети	iciapievii
Buprenorphine	_	П
Diflunisal		\Diamond
Ibuprofen	*	Š
Methadone		Y
Antiarrhythmics	_	_
Amiodarone		
Bepridil		
Digoxin		
Flecainide		
Lidocaine		
Propafenone		
Quinidine		
Antibacterials		_
Aminoglycosides (IV)	♦	
Clarithromycin	<u> </u>	Y
Dapsone		
Erythromycin	$\overline{}$	Y
Moxifloxacin	-	
Rifabutin	- Y	Y
Rifampin		
Telithromycin		
Trimethoprim/Sulfamethoxazole		
Vancomycin	$\overline{}$	×
Anticonvulsants		
Carbamazepine		
Phenobarbital Phenobarbital		
Phenytoin		
Antidepressants		
Desipramine		
Escitalopram	<u></u>	
Trazodone		
Antifungals		
Amphotericin B	$\overline{\qquad}$	\Diamond
Itraconazole	_	
Ketoconazole		
Posaconazole		
Voriconazole		
Antimigraine Agents		
Dihydroergotamine		
Ergonovine		
Ergotamine		
Methylergonovine		

KEY TO SYMBOLS

Filled symbols indicate further information on the interaction is available at www.hep-druginteractions.org. Empty symbols indicate the interaction has not been assessed (either by study or within the product label) and has been predicted based on the metabolic profiles of the drugs.

- ●/○ These drugs should not be coadministered
- Potential interaction—may require close monitoring, alteration of drug dosage or timing of administration
- ♦/♦ No clinically significant interaction expected

	Boceprevir	Telaprevir
Antipsychotics/Neuroleptics		
Clozapine		
Pimozide		
Antivirals		
Amantadine	\Diamond	\Diamond
Cidofovir	\Diamond	\Diamond
Foscarnet	\Diamond	\Diamond
Anxiolytics/Hypnotics/Sedatives	·	
Alprazolam		
Midazolam (oral)		
Midazolam (parenteral)		
Triazolam		
Zolpidem		
Bronchodilators		
Salmeterol		
Theophylline	\Diamond	\Diamond
Calcium Channel Blockers		
Amlodipine		
Diltiazem	- 	
Felodipine		
Nicardipine		
Nifedipine		
Nisoldipine		_
Verapamil	- 	
Contraceptives and Hormonal Repl	acement	
Drospirenone	acement -	
Ethinyl estradiol		
Norethindrone		
Erectile Dysfunction Agents		
Sildenafil	_	_
Tadalafil		_
Vardenafil		_
Gastrointestinal Agents		
Antacids		<u> </u>
Cimetidine		
Cisapride		
Esomeprazole		
Ranitidine		
Hepatitis Drugs		
HCV Protease Inhibitors		
Boceprevir		
Telaprevir		
Interferons		
Peg Interferon alfa		
Nucleoside/tide Analogues		
Adefovir	\Diamond	<u> </u>
Entecavir	\Diamond	<u> </u>
Lamivudine	♦	\Diamond
Ribavirin	•	•
Telbivudine	♦	\Diamond
Tenofovir	•	
Herbals/Supplements/Vitamins		
St. John's Wort		

	Boceprevir	Telaprevir
HIV Drugs	Boccpievii	leiaprevii
Entry/Integrase Inhibitors		
Maraviroc		
Raltegravir	$\overline{\Diamond}$	
NNRTIs		
Delavirdine		
Efavirenz		
Etravirine	- 	
Nevirapine		
NRTIs		^
Abacavir	$\stackrel{\times}{\longrightarrow}$	\longrightarrow
Didanosine	<u> </u>	\longrightarrow
Emtricitabine	$\stackrel{\times}{-\!\!\!-\!\!\!\!-}$	$\stackrel{\times}{\sim}$
Stavudine		
Zidovudine		_
Protease Inhibitors	<u>_</u>	_
Atazanavir		
Darunavir		
Fosamprenavir		
Indinavir		
Lopinavir		
Nelfinavir	<u> <u> </u></u>	<u> </u>
Ritonavir		
Saquinavir		
Tipranavir		
Hypertension/Heart Failure Agents		
Sildenafil	•	
Tadalafil		
Immunosuppressants		
Azathioprine	<u> </u>	\Diamond
Cyclosporine		
Sirolimus		
Tacrolimus		
Lipid Lowering Agents		
Atorvastatin		
Fibrates	\Diamond	\Diamond
Lovastatin	•	
Simvastatin	•	
Other Drugs		
Alfuzosin	•	•
Bosentan		
Colchicine		
Dietary Purines	\Diamond	\Diamond
Pentamidine	\Diamond	\Diamond
Platinum Compounds	\Diamond	\Diamond
Thalidomide	\Diamond	\Diamond
Tolbutamide	\Diamond	\Diamond
Warfarin		
Steroids		
Budesonide		
Dexamethasone		
Fluticasone		
Methylprednisolone		
Prednisone		
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