

Pharmacy Benefit Determination Policy

<b>Policy Subject:</b> Miscellaneous GI Agents	<b>Dates:</b>
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<b>Department:</b> Pharmacy	<b>Next Review Date:</b> February 2019
<b>Product</b> (check all that apply):	<b>Clinical Approval By:</b>
<input checked="" type="checkbox"/> Group HMO/POS	<b>Medical Directors</b>
<input checked="" type="checkbox"/> Individual HMO/POS	PHP: Peter Graham, MD
<input checked="" type="checkbox"/> PPO	<b>Pharmacy and Therapeutics Committee</b>
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<b>Policy Statement:</b>
Physicians Health Plan, PHP Insurance & Service Company, and Sparrow PHP will cover Xifaxan, Viberzi, Dificid and Zinplava through the Medical/Pharmacy Benefit based on approval by the Clinical Pharmacist or Medical Director using the following determination guidelines

<b>Drugs and Applicable Coding:</b>
<b>J-code:</b>

<b>Clinical Determination Guidelines:</b>
<p>Document the following with chart notes</p> <p>A. Irritable Bowel Syndrome with Diarrhea (IBS-D)</p> <ol style="list-style-type: none"> <li>1. Diagnosis and severity: Fulfill Rome III IBS criteria (see Appendix I)</li> <li>2. Other therapies: Contraindicated, failed or had significant adverse effect to all the agents below: <ol style="list-style-type: none"> <li>a. OTC Agents (1 of each): Fiber/psyllium (not bran), Probiotics</li> <li>b. Prescription Agents (1 of each below) <ul style="list-style-type: none"> <li>• Antispasmodics: such as dicyclomine (Bentyl), hyoscyamine (Levsin)</li> <li>• Antidepressants: Tricyclic, SSRI's</li> </ul> </li> </ol> </li> <li>3. Dosage regimen <ol style="list-style-type: none"> <li>a. Xifaxan po (rifaximin): 550mg 3x/day x 14 days (#42 tabs/14 days), may repeat regimen twice (total of 3 courses) for re-occurrence</li> <li>b. Viberzi po (eluxadoline): <ul style="list-style-type: none"> <li>• 100mg 2x/day</li> <li>• 75mg 2x/day: patients without gall bladder, intolerant to 100mg dose, receiving OATP1B1 inhibitors or has mild-mod hepatic impairment</li> </ul> </li> </ol> </li> <li>4. Approval <ol style="list-style-type: none"> <li>a. Initial: Xifaxan - 1 course; Viberzi - 6 months</li> <li>b. Re-approval: <ul style="list-style-type: none"> <li>• Re-occurrence or continued symptoms</li> <li>• Xifaxin - 1 course; Viberzi - 1 year</li> </ul> </li> </ol> </li> </ol>

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B. *Clostridium Difficile* Infections (CDI)

1. Diagnosis and severity

a. Diagnosis

- Difigid po (fidaxomicin): Treatment of diarrhea due to *Clostridium difficile*
- Zinplava IV (bezlotoxumab): Adjunct with antibiotic(s) to decrease recurrence in high-risk patients

b. Lab (1 below)

- GDH: Positive screen followed by confirmatory test (NAAT or EIA) or
- NAAT: Positive for toxigenic *C. difficile* but only in patients with documented diarrhea

c. Zinplava: Risk of reoccurrence (2 of the risk factors below)

- Age:  $\geq 65$  years
- History of CDI within the previous 6 months.
- Immunocompromised
- CDI with hyper-virulent strain: ribo-types 027, 078, 244
- Severe CDI at presentation: Shock, megacolon, perforation, acute renal failure

2. Other therapies: Contraindicated, failed or had significant adverse effects (See Appendix IV)

a. Difigid po (fidaxomicin):

- Mild-moderate disease: Vancomycin po
- Recurrent Disease: Vancomycin po

b. Zinplava IV (bezlotoxumab):

- Severe and complicated disease: Vancomycin (PO and rectal) + Metronidazole IV

4. Dosage regimen/Approval

a. Initial:

- Difigid po (fidaxomicin): 200mg 2x/day x 10 days
- Zinplava IV (bezlotoxumab): 10mg/Kg x 1

b. Reapprove: Vancomycin x 10 days prior to reapproval

C. Hepatic Encephalopathy (HE)

1. Diagnosis and severity: (Refer to Appendix I)

a. Severity: Overt HE (OHE) grade II-IVb.

b. Blood ammonia

- Increased level alone does not add diagnostic, staging or prognostic value
- Normal levels call for diagnostic re-evaluation

2. Treatment indications for Overt HE (one below)

a. Active treatment: Spontaneous or precipitated episode of HE

b. Secondary prophylaxis: Post overt HE episode

c. Primary prophylaxis: Prevent those at high risk for an episode of OHE with cirrhosis

3. Other therapies: Failed or significant adverse effects (both of the below)

a. Lactulose

- First choice for treatment of episodic OHE; prevention of recurrent episodes of HE
- Dose: 25mL every 1-2 hours until  $\geq 2$  soft/loose BMs/day, then maintain at 2-3 BMs/day

b. Neomycin

4. Dosage regimen

a. Combination therapy with lactulose: No solid data to support Rifaxan use alone

b. Dose: 550mg 2x daily

5. Approval

a. Initial: 6 months.

b. Re-approval: 6 months.

c. Discontinue: Precipitating factors controlled; or liver function or nutritional status improved

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## D. Traveler's Diarrhea

1. Diagnosis and severity
  - a. Symptoms: Mild cramps/urgent loose stools to severe abdominal pain, fever, vomiting and bloody diarrhea.
  - b. Onset: 6-48 hrs. incubation for bacterial and viral pathogens
  - c. Travel in high-risk areas: Asia, Middle East, Africa, Mexico and Central/South America
2. Other therapies: Contraindicated, failed or had significant adverse effects (both below)
  - a. Anti-motility agents: loperamide, diphenoxylate
  - b. Antibiotics:
    - Ciprofloxacin/levofloxacin: 1-day treatment
    - Microbial resistance (*campylobacter*, *Shigella*, *Salmonella*): Azithromycin 1000mg x1 or 500mg/day for 1-3 days
3. Dosage regimen
  - a. Only effective for noninvasive *E Coli*
  - b. Xifaxan (rifaximin oral): 200mg 3x/day x 3 days
4. Approval
  - a. Initial: 1 course - #9 tabs per 3 days

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Appendix I: Rome III criteria – IBS

Symptoms		
Recurrent abdominal pain or discomfort with 2 of the following:		
Improvement w defecation	and/or Onset associated w a change in frequency of stool	and/or Onset associated w a change in form (appearance of stool)
Timing		
Onset	Frequency	Symptom Occurrence
6 months prior	3 days/month	Last 3 months

Appendix II : HE Description & clinical example

Type	Grade		Time Course	Spontaneous or Precipitated
A	MHE	Covert	Episodic	Spontaneous
-----	1			
B	2	Overt	Recurrent	Precipitated
-----	3		-----	
C	4		Persistent	

*HE patient characterized by 1 component from each of the 4 columns. Example: HE, Type C, Grade 3, Recurrent, Precipitated (by UTI). May be supplemented w operative classifications (e.g. Glasgow Coma Score or psychometric performance).*

Appendix III: Monitoring & Patient Safety - Adverse Reactions and Monitoring

Drug	Adverse Reactions	Monitoring	REMS
Xifaxan rifaximin	<ul style="list-style-type: none"> <li>CNS: HA</li> <li>Pregnancy category C</li> </ul>	<ul style="list-style-type: none"> <li>CNS: Mental Status changes (HE)</li> <li>GU: Blood in stool</li> <li>Other: Temperature, hypersensitivity Rx</li> </ul>	None needed
Viberzi eluxadoline	<ul style="list-style-type: none"> <li>GI: Constipation (7-8%), nausea (7-8%), abdominal pain (6-7%)</li> <li>Pregnancy: Teratogenicity not seen in animal studies</li> </ul>	<ul style="list-style-type: none"> <li>CNS: Cognitive/physical impairment in patient w ↓hepatic fx</li> <li>GI: ↑ abdominal pain w/wo N &amp; V &amp; acute biliary pain w hepatic/pancreatic enzymes</li> </ul>	None needed
Zinplava Bezlotoxumab	<ul style="list-style-type: none"> <li>CV: Exacerbation of heart failure (13%)</li> <li>Pregnancy: Animal reproduction studies not done. Monoclonal antibodies pass thru the placenta</li> </ul>	<ul style="list-style-type: none"> <li>None listed</li> </ul>	None needed

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### Appendix IV

**Table 1. Recommendations for the Treatment of *Clostridium difficile* Infection in Adults**

Clinical Definition	Supportive Clinical Data	Recommended Treatment <sup>a</sup>	Strength of Recommendation/ Quality of Evidence
Initial episode, non-severe	Leukocytosis with a white blood cell count of $\leq 15,000$ cells/mL and a serum creatinine level $< 1.5$ mg/dL	<ul style="list-style-type: none"> <li>• VAN 125 mg given 4 times daily for 10 days, OR</li> <li>• FDX 200 mg given twice daily for 10 days</li> <li>• Alternate if above agents are unavailable: metronidazole, 500 mg 3 times per day by mouth for 10 days</li> </ul>	Strong/High Strong/High Weak/High
Initial episode, severe <sup>b</sup>	Leukocytosis with a white blood cell count of $\geq 15,000$ cells/mL or a serum creatinine level $> 1.5$ mg/dL	<ul style="list-style-type: none"> <li>• VAN, 125 mg 4 times per day by mouth for 10 days, OR</li> <li>• FDX 200 mg given twice daily for 10 days</li> </ul>	Strong/High Strong/High
Initial episode, fulminant	Hypotension or shock, ileus, megacolon	<ul style="list-style-type: none"> <li>• VAN, 500 mg 4 times per day by mouth or by nasogastric tube. If ileus, consider adding rectal instillation of VAN. Intravenously administered metronidazole (500 mg every 8 hours) should be administered together with oral or rectal VAN, particularly if ileus is present.</li> </ul>	Strong/Moderate (oral VAN); Weak/Low (rectal VAN); Strong/Moderate (intravenous metronidazole)
First recurrence	...	<ul style="list-style-type: none"> <li>• VAN 125 mg given 4 times daily for 10 days if metronidazole was used for the initial episode, OR</li> <li>• Use a prolonged tapered and pulsed VAN regimen if a standard regimen was used for the initial episode (eg, 125 mg 4 times per day for 10–14 days, 2 times per day for a week, once per day for a week, and then every 2 or 3 days for 2–8 weeks), OR</li> <li>• FDX 200 mg given twice daily for 10 days if VAN was used for the initial episode</li> </ul>	Weak/Low Weak/Low Weak/Moderate
Second or subsequent recurrence	...	<ul style="list-style-type: none"> <li>• VAN in a tapered and pulsed regimen, OR</li> <li>• VAN, 125 mg 4 times per day by mouth for 10 days followed by rifaximin 400 mg 3 times daily for 20 days, OR</li> <li>• FDX 200 mg given twice daily for 10 days, OR</li> <li>• Fecal microbiota transplantation<sup>c</sup></li> </ul>	Weak/Low Weak/Low Weak/Low Strong/Moderate

Abbreviations: FDX, fidaxomicin; VAN, vancomycin.

<sup>a</sup>All randomized trials have compared 10-day treatment courses, but some patients (particularly those treated with metronidazole) may have delayed response to treatment and clinicians should consider extending treatment duration to 14 days in those circumstances.



<sup>b</sup>The criteria proposed for defining severe or fulminant *Clostridium difficile* infection (CDI) are based on expert opinion. These may need to be reviewed in the future upon publication of prospectively validated severity scores for patients with CDI.

<sup>c</sup>The opinion of the panel is that appropriate antibiotic treatments for at least 2 recurrences (ie, 3 CDI episodes) should be tried prior to offering fecal microbiota transplantation.

### References and Resources:

1. Lexicomp Online®, Lexi-Drugs®, Hudson, Ohio: Lexi-Comp, Inc.; Xifaxan, Viberzi, Zinplava, Dificid accessed Jan. 2019
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3. American Gastroenterological Association Guideline on the Pharmacological Management of Irritable Bowel Syndrome. Gastroenterol 2014;147:1146-1148.
4. Hepatic Encephalopathy in Chronic Liver Disease: 2014 Practice Guidelines by AASLD and EASL.
5. Centers for Disease Control & Prevention (2014). Yellowbook. Chapter 2 - the pre-travel-consultation. Traveler's Diarrhea. Retrieved from <http://.cdc.gov/travel/yellowbook/2014>
6. Xifaxan [Package Insert], Whitby, Ontario, Salix;2015.
7. Clinical Practice Guidelines for *C. difficile* infections in adults and children: 2017 Update by the IDSA and SHEA. CID 2018;66:e1-e48
8. Bezlotoxumab for Prevention of recurrent *C. difficile* infection. N Eng J Med 2017;376(4);305-317.

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Approved By:	
 Peter Graham, MD – PHP Executive Medical Director	2/28/18 Date
 Kurt Batteen - Human Resources	2/28/18 Date