CONDITIONS

VULVOVAGINAL CANDIDIASIS (VVC)

STATEWIDE DRUG THERAPY MANAGEMENT PROTOCOL for the OREGON PHARMACIST

AUTHORITY and PURPOSE: Per ORS 689.645, a pharmacist may provide patient care services pursuant to a statewide drug therapy management protocol.

- Following all elements outlined in OAR 855-115-0330 and OAR 855-115-0335 a pharmacist licensed and located in Oregon may prescribe a single course of treatment for non-complicated vulvovaginal candidiasis (VVC).

STANDARDIZED PATIENT ASSESSMENT PROCESS ELEMENTS:

- Utilize the standardized Vulvovaginal Candidiasis / Yeast Infection Intake Form (pg. 2)
- Utilize the standardized Vulvovaginal Candidiasis Assessment and Treatment Care Pathway (pg. 3-6)

Vulvovaginal Candidiasis (Yeast Infection) Self-Screening Intake Form
(CONFIDENTIAL-Protected Health Information)

Date _____/_____/_____ Date of Birth _____/_____/_____ Age_____
Legal Name_____ Preferred Name _____
Sex Assigned at Birth (circle) M / F Gender Identification (circle) M / F / Other_____
Preferred Pronouns (circle) She/Her/Hers, He/Him/His, They/Them/Their, Ze/Hir/Hirs, Other_____
Street Address _____
Phone ( ) _____ Email Address _____
Healthcare Provider Name _____ Phone ( ) _____ Fax ( ) _____
Do you have health insurance? Yes / No Insurance Provider Name _____
Any allergies to medications? Yes / No If yes, please list _____

1.	Has a provider ever diagnosed you with a yeast infection? If so, how recently? _____ How many have you experienced within the last year? _____ How many have you experienced within your lifetime? _____ Have you ever experienced a difficult to treat yeast infection or had treatment not work? What treatments (if any) have you tried for past and/or current yeast infections? Please list them here: _____ _____	□ Yes □ No □ Not sure □ Yes □ No □ Not sure
2.	Symptom review: - Soreness, burning, or itchy vaginal area - Abnormal discharge (color, smell, consistency, etc.) - Pain with urination - Fever - Pain in the lower abdomen and/or back - Other symptoms: _____	 □ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No
3.	Have you ever been sexually active? If so, how recently? _____	□ Yes □ No
4.	Have you ever been tested for OR diagnosed with a sexually transmitted infection? If yes, when? _____	□ Yes □ No □ Not sure
5.	When was the first day of your last menstrual period?	Date: _____
6.	Are you currently pregnant?	□ Yes □ No □ Not sure
7.	Are you using any of the following contraceptive devices? 1. Vaginal sponge 2. Diaphragm 3. Intrauterine device (IUD)	 □ Yes □ No □ Yes □ No □ Yes □ No
8.	Have you used antibiotics in the last month?	□ Yes □ No □ Not sure
9.	Has a provider ever diagnosed you with an autoimmune disease? If yes, list them here: _____ _____	□ Yes □ No □ Not sure
10.	Do you have diabetes?	□ Yes □ No □ Not sure
11.	Have you ever been diagnosed with a heart rhythm condition (or QT prolongation)? If yes, list them here: _____	□ Yes □ No □ Not sure
12.	Do you have any other medical problems? If yes, list them here: _____ _____	□ Yes □ No □ Not sure
13.	Are you currently taking any medications, supplements, and/or vitamins? If yes, list them here: _____ _____ _____	□ Yes □ No □ Not sure

Signature_____ Date_____

Standardized Assessment and Treatment Care Pathway
Vulvovaginal Candidiasis (VVC)

1) Vulvovaginal Candidiasis (VVC) and Sexually Transmitted Infection (STI) Screen (Form Qs: #1-5)

a. Reoccurrence: If 4 or more episodes within 12 months or recurrent symptoms within 2 months → **Refer**

b. Symptoms inconsistent with VVC: Pain with urination, fever, pain in the lower abdomen and/or back, symptoms consistent with STI, or any other inconsistencies.

If YES to any of these symptoms → **Refer**

2) Pregnancy Screen (Form Qs: #5-6)

a. Did you have a baby less than 6 months ago, are you fully or nearly-fully breast feeding, AND have you had no menstrual period since the delivery?

b. Have you had a baby in the last 4 weeks?

c. Did you have a miscarriage or abortion in the last 7 days?

d. Did your last menstrual period start within the past 7 days?

e. Have you abstained from sexual intercourse since your last menstrual period or delivery?

f. Have you been using a reliable contraceptive method consistently and correctly?

If YES to AT LEAST ONE of these questions and is free of pregnancy symptoms, proceed to next step.

If NO to ALL of these questions, pregnancy cannot be ruled out → **Refer**

3) Medication and Disease State Screen (Form Qs: #7-13)

a. Are you using the following contraceptive devices: vaginal sponge, diaphragm, IUD → **Refer**

b. Do you have diabetes or other immunosuppressed conditions? → **Refer**

c. Are you taking corticosteroids or immunosuppressive medications, including antineoplastics? → **Refer**

4) Assess and Initiate Antifungal Therapy:

All therapies are equally effective in treating uncomplicated VVC. Choice of therapy should be based on patient safety, preference, availability, and cost.

All therapy is limited to one course of treatment.

a. *Oral therapy*. If indicated, the pharmacist shall issue a prescription for fluconazole and counsel on side effects and follow-up.
   - Fluconazole 150mg tablet, #1

b. *Topical therapy.* If indicated, the pharmacist shall discuss the most appropriate option with the patient, issue a prescription, and counsel on side effects and follow-up of any one of the following treatments:
   - Clotrimazole (various strengths/formulations)
   - Miconazole (various strengths/formulations)
   - Tioconazole (various strengths/formulations)

5) Complete Patient Encounter

Advise: Patient should seek medical advice from a care provider if symptoms do not resolve in 7-14 days.
Encourage: Routine health screenings, STI prevention, etc.
Document: All required elements

Medication options/considerations:

- ***Fluconazole***[1]:
  - *Dose and directions*: 150mg Tablet, quantity #1; Take one tablet by mouth one time. If symptoms do not resolve after 1 week, contact your primary care provider.
  - *Warnings/Precautions*: Potential patient harm is associated with known side effects of taking fluconazole. It is well tolerated, but may cause symptoms such as nausea, vomiting, dizziness, and headache. More rare side effects may include:
    - Prolonged QT interval which could lead to Torsades de Pointes. This is rarely a concern unless a patient is taking multiple QT prolonging drugs, has a preexisting heart condition, or known prolonged QT interval.
    - Hepatic toxicity (i.e. hepatitis, cholestasis, fulminant hepatic failure, etc.). Monitor liver function tests of patients with known impaired hepatic function
    - Hypersensitivity reactions: Use with caution in patients with hypersensitivity to other azoles
    - Skin reactions: Monitor for rash development
  - *Metabolism*: **Inhibits** CYP2C19 (strong), CYP2C9 (moderate), CYP3A4 (moderate)
  - *Contraindications for fluconazole use: (consider other therapy)*
    - Prolonged QT interval
    - Multiple QT prolonging drugs
    - Impaired hepatic function
    - Hypersensitivity reactions: Use with caution in patients with hypersensitivity to other azoles
    - Other interacting medications

- ***Clotrimazole***[2]*:*
  - *Dose and directions*:
    - Cream: If symptoms do not resolve after 1 week, contact your primary care provider.
      - 1%: One applicatorful inserted intravaginally at night daily for 7 days.
      - 2%: One applicatorful inserted intravaginally at night daily for 3 days.
      - 10%: One applicatorful to be inserted intravaginally at night as a single dose.
  - *Warnings/Precautions*: It is well tolerated, but may cause symptoms such as irritation and burning.
  - *Drug Interactions:*
    - Progesterone: may diminish the therapeutic effect of Progesterone (*Risk X: Avoid combination)*
    - Sirolimus: may increase the serum concentration of Sirolimus (*Risk C: Monitor therapy)*
    - Tacrolimus (systemic): may increase the serum concentration of Tacrolimus (Systemic) (*Risk C: Monitor therapy)*
  - *Contraindications for clotrimazole use: (consider other therapy)*
    - Progesterone
    - Sirolimus
    - Tacrolimus (systemic)
    - Other interacting medications

- ***Miconazole[3]:***
    - *Dose and directions*:
        - Suppository Capsule: If symptoms do not resolve after 1 week, contact your primary care provider.
            - 100mg: one capsule inserted intravaginally at night daily for 7 days.
            - 200mg: one capsule inserted intravaginally at night daily for 3 days.
            - 1,200mg: one capsule to be inserted intravaginally at night as a single dose.
        - Cream: If symptoms do not resolve after 1 week, contact your primary care provider.
            - 2%: One applicatorful inserted intravaginally at night daily for 7 days.
            - 4%: One applicatorful inserted intravaginally at night daily for 3 days.
    - *Warnings/Precautions*: It is well tolerated, but may cause symptoms such as irritation and burning.
    - *Drug Interactions:*
        - Progesterone: may diminish the therapeutic effect of Progesterone (*Risk X: Avoid combination)*
        - Vitamin K Antagonists (i.e. warfarin): may increase the serum concentration of Vitamin K Antagonists (*Risk D: Consider therapy modification)*
        - Sulfonylureas: may inhibit the metabolism of oral sulfonylureas
    - *Contraindications for miconazole use: (consider other therapy)*
        - Progesterone
        - Vitamin K Antagonists (i.e. warfarin)
        - Sulfonylureas
        - Other interacting medications
- ***Tioconazole[4]:***
    - *Dose and directions*:
        - Ointment: If symptoms do not resolve after 1 week, contact your primary care provider.
            - 6.5%: One applicatorful to be inserted intravaginally at night as a single dose.
    - *Warnings/Precautions*: It is well tolerated, but may cause symptoms such as irritation and burning.
    - *Drug Interactions:*
        - Progesterone: may diminish the therapeutic effect of Progesterone (*Risk X: Avoid combination)*
    - *Contraindications for tioconazole use: (consider other therapy)*
        - Progesterone
        - Other interacting medications

References:

1. Fluconazole. Lexi-Drugs. Lexicomp. Wolters Kluwer Health, Inc. Riverwoods, IL. Available at: http://online.lexi.com. Updated February 12, 2020. Accessed February 14, 2020.
2. Clotrimazole. Lexi-Drugs. Lexicomp. Wolters Kluwer Health, Inc. Riverwoods, IL. Available at: http://online.lexi.com. Updated February 14, 2020. Accessed February 15, 2020.
3. Miconazole. Lexi-Drugs. Lexicomp. Wolters Kluwer Health, Inc. Riverwoods, IL. Available at: http://online.lexi.com. Updated February 17, 2020. Accessed February 17, 2020.
4. Tioconazole. Lexi-Drugs. Lexicomp. Wolters Kluwer Health, Inc. Riverwoods, IL. Available at: http://online.lexi.com. Updated November 22, 2019. Accessed February 15, 2020.
5. Peter G. Pappas, Carol A. Kauffman, David R. Andes, Cornelius J. Clancy, Kieren A. Marr, Luis Ostrosky-Zeichner, Annette C. Reboli, Mindy G. Schuster, Jose A. Vazquez, Thomas J. Walsh, Theoklis E. Zaoutis, Jack D. Sobel, Clinical Practice Guideline for the Management of Candidiasis: 2016 Update by the Infectious Diseases Society of America, Clinical Infectious Diseases, Volume 62, Issue 4, 15 February 2016, Pages e1–e50, https://doi.org/10.1093/cid/civ933

Vulvovaginal Candidiasis (VVC) Prescription

Optional -May be used by pharmacy if desired

Patient Name:	Date of birth:
Address:	
City/State/Zip Code:	Phone number:

☐ Verified DOB with valid photo ID

Rx

Drug:

Sig:

Quantity:

Refills: 0

DAW: ____

Written Date: _____

Prescriber Name: _____Prescriber Signature: _____

Pharmacy Address: _____ Pharmacy Phone: _____

-or-

☐ Patient Referred

Notes:_____
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