

Alabama Medicaid DUR Board Meeting Minutes Summary
July 28, 2021

Members Present: Kelli Littlejohn Newman, Crystal Deas, Kelly Tate, Dan McConaghy, Marilyn Bulloch, Danielle Powell, Mary Stallworth, Amber Clark, Melinda Rowe, Christopher Stanley

Also Present: Lori Thomas, Clemice Hurst, Julie Jordan, Heather Vega, Alex Jenkins, LaQwanda Eddings-Haygood, ACHN Pharmacists

Members Absent: Rachel Seaman, Bernie Olin

Call to Order: The DUR meeting was called to order by L. Thomas at approximately 1:12 p.m. Due to the absence of Chair R. Seaman and Vice Chair B. Olin, a Chair Pro Tem was nominated. D. McConaghy nominated M. Bulloch and D. Powell seconded the motion.

Review and Adoption of Minutes: The minutes of the April 28, 2021 meeting were presented, and K. Tate made a motion to approve the minutes. C. Deas seconded the motion, and the motion was approved unanimously.

Prior Authorization and Overrides Update: L. Thomas began the Prior Authorization and Overrides Update with the Monthly Manual Prior Authorizations and Overrides Report for the month of January 2021. She reported 11,842 total manual requests and 17,466 total electronic requests. From the Prior Authorization and Override Response Time Ratio report for January 2021, L. Thomas reported that approximately 61% of all manual PAs and 63% of all overrides were completed in less than two hours. Eighty-nine to 90% of all manual PAs and overrides were completed in less than four hours. Ninety-four to 95% of all manual PAs and all overrides were completed in less than eight hours. For the month of February 2021, L. Thomas reported 11,710 manual PA requests and 14,316 electronic PA requests were received. She reported that 54% of all manual PAs and 52% of all overrides were completed in less than two hours. Eighty-two percent of all manual PAs and 81% of all overrides were completed in less than four hours. Eighty-seven percent of all manual PAs and all overrides were completed in less than eight hours. For the month of March 2021, L. Thomas reported 13,812 manual PA requests and 15,990 electronic PA requests. L. Thomas reported that approximately 60% of all manual PAs and 61% of all overrides were completed in less than two hours. Eighty-eight percent of all manual PA requests and 90% of all overrides were completed in less than four hours. Ninety-two percent of all manual PA requests and 94% of all overrides were completed in less than eight hours.

Program Summary Review: L. Thomas briefly reviewed the Alabama Medicaid Program Summary for the months of October 2020 through March 2021. She reported 3,382,217 total prescriptions, 201,550 average recipients per month using pharmacy benefits, and an average paid per prescription of \$137.02.

Cost Management Analysis: L. Thomas reported an average cost per claim of \$140.09 for March 2021 and emphasized that the table contained the average cost per claim over the past two years. From the 1st Quarter 2021 Drug Analysis, L. Thomas reported 82.74% generic utilization, 8.77% brand single-source, 4.97% brand multi-source (those requests which required a DAW override), and 3.52% OTC and "other". From the Top 25 Drugs Based on Number of Claims from 01/01/2021 – 03/31/2021, L. Thomas reported the top five drugs: cetirizine, albuterol sulfate HFA, amoxicillin, montelukast sodium, and gabapentin. L. Thomas mentioned that this was identical to 4th Quarter 2020. L. Thomas pointed out that there were previously 24,610 claims for hydrocodone-APAP. L. Thomas then reported the top five drugs from the Top 25 Drugs Based on Claims Cost from 01/01/2021 – 03/31/2021: Vyvanse[®], Focalin XR[®], Humira[®] Citrate-free, Invega[®] Sustenna[®], and Suboxone[®]. From the Top 15 Therapeutic Classes by Total Cost of Claims for the same time frame, L. Thomas reported the top five classes: Antipsychotic Agents,

Disease-modifying Antirheumatic Agents, Respiratory and CNS Stimulants, Insulins, and Miscellaneous Anticonvulsants.

RDUR Intervention Report: L. Thomas presented the RDUR Activity Report for January 2021. She reported 503 profiles reviewed and 542 letters sent with 36 responses received as of the date of the report. She reported 46 of 67 physicians indicated that they found the RDUR letters “useful” or “extremely useful”. The criteria for the cycle of intervention letters included Drug-Drug Interaction (Support Act criteria – pure opioid agonists and benzodiazepines); Drug-Drug Interaction (Support Act criteria – pure opioid agonists and antipsychotics); Appropriate Use (concurrent use of buprenorphine and pure opiate agonists).

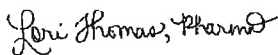
Proposed Criteria: L. Thomas presented the proposed set of 55 criteria to the Board and instructed the Board members to mark their ballots. Of the 55 proposed criteria, results from the criteria vote returned 55 approved.

Medicaid Update: K. Newman reminded the Board members that all updated Medicaid drug lists and ALERTs were provided to them electronically and are also available online. K. Newman also informed the Board members that COVID-19 vaccination information could be found on Medicaid’s website along with other COVID-related information.

P & T Committee Update: C. Hurst began the P & T Update by informing the Board that the last meeting was held on May 5, 2021, and covered the ADHD Agents, Wakefulness Promoting Agents, and part of the Anti-infectives. The next P & T Committee meeting will be held on August 4, 2021, and will cover the second part of the Anti-infectives.

Next Meeting Date: K. Newman reminded the Board that the next DUR meeting will be held on October 27, 2021. A motion to adjourn the meeting was made by D. McConaghy. K. Tate seconded the motion and the meeting was adjourned at 2:18 p.m.

Respectfully submitted,



Lori Thomas, PharmD.

**ALABAMA MEDICAID
RETROSPECTIVE DRUG UTILIZATION REVIEW
CRITERIA RECOMMENDATIONS**

Criteria Recommendations

**• Accepted Approved Rejected
As
Amended**

1. Upadacitinib / Overuse

Alert Message: Rinvoq (upadacitinib) may be over-utilized. The recommended dose of upadacitinib is 15 mg once daily.

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Drugs/Diseases

Util A

Util B

Util C

Upadacitinib

Max Dose: 15 mg/day

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

2. Upadacitinib / Therapeutic Appropriateness

Alert Message: The safety and efficacy of Rinvoq (upadacitinib) in children and adolescents aged 0 to less than 18 years have not yet been established.

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Drugs/Diseases

Util A

Util B

Util C

Upadacitinib

Age Range: 0 – 17 yoa

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

3. Upadacitinib / Therapeutic Appropriateness

Alert Message: Rinvoq (upadacitinib) use is not recommended in patients with severe hepatic impairment (Child-Pugh C). Upadacitinib undergoes hepatic metabolism. Upadacitinib was not studied in patients with severe hepatic impairment.

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Drugs/Diseases

Util A

Util B

Util C

Upadacitinib

Cirrhosis

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

4. Upadacitinib / Serious Infection (Black Box Warning)

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Alert Message: Serious and sometimes fatal infections have been reported in patients receiving Rinvoq (upadacitinib). The most frequent serious infections reported with upadacitinib included pneumonia and cellulitis. Avoid use of upadacitinib in patients with an active, serious infection, including localized infections. Closely monitor patients for the development of signs and symptoms of infection during and after treatment with upadacitinib. Interrupt upadacitinib if a patient develops a serious or opportunistic infection.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Upadacitinib	Serious Infections	

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

5. Upadacitinib / Tuberculosis (Black Box Warning)

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Alert Message: Patients should be screened for tuberculosis (TB) before starting Rinvoq (upadacitinib) therapy. Upadacitinib should not be given to patients with active TB. Anti-TB therapy should be considered prior to initiation of upadacitinib in patients with previously untreated latent TB or active TB in whom an adequate course of treatment cannot be confirmed, and for patients with a negative test for latent TB but who have risk factors for TB infection.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Upadacitinib	Tuberculosis	

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

6. Upadacitinib / Thrombosis (Black Box Warning)

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Alert Message: Thrombosis, including deep venous thrombosis, pulmonary embolism, and arterial thrombosis, have occurred in patients treated for inflammatory conditions with Janus kinase (JAK) inhibitors, including Rinvoq (upadacitinib). Many of these adverse events were serious and some resulted in death. Consider the risks and benefits of upadacitinib treatment prior to treating patients who may be at increased risk of thrombosis. If symptoms of thrombosis occur, patients should be evaluated promptly and treated appropriately.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Upadacitinib	Thrombosis	
	Pulmonary Embolism	
	Arterial Thrombosis	

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

7. Upadacitinib / Malignancy

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Alert Message: Malignancies were observed in clinical studies of Rinvoq (upadacitinib). Consider the risks and benefits of upadacitinib treatment prior to initiating therapy in patients with a known malignancy other than a successfully treated non-melanoma skin cancer (NMSC) or when considering continuing upadacitinib in patients who develop a malignancy.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C (Include)</u>
Upadacitinib		Malignancy

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

8. Upadacitinib / Gastrointestinal Perforation

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Alert Message: Events of gastrointestinal perforation have been reported in clinical studies with Rinvoq (upadacitinib), although the role of JAK inhibition in these events is not known. In these studies, many patients with rheumatoid arthritis were receiving background therapy with Nonsteroidal Anti-Inflammatory Drugs (NSAIDs). Upadacitinib should be used with caution in patients who may be at increased risk for gastrointestinal perforation (e.g., patients with a history of diverticulitis or taking NSAIDs). Patients presenting with new onset abdominal symptoms should be evaluated promptly for early identification of gastrointestinal perforation.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Upadacitinib	Diverticulitis NSAIDs Budesonide Cortisone Dexamethasone Deflazacort	Hydrocortisone Methylprednisolone Prednisolone Prednisone

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

9. Upadacitinib / Potent Immunosuppressants

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Alert Message: The use of Rinvoq (upadacitinib) in combination with other JAK Inhibitors, biologic DMARDs, or potent immunosuppressants is not recommended. Concurrent use of upadacitinib with these agents may put the patient at increased risk for serious adverse effects.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Upadacitinib	JAK Inhibitors Biologic DMARDs Azathioprine Cyclosporine	

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

10. Upadacitinib / Strong CYP3A4 Inhibitors

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Alert Message: Rinvoq (upadacitinib) should be used with caution in patients receiving chronic treatment with strong CYP3A4 inhibitors. Upadacitinib is a CYP3A4 substrate, and the use with strong CYP3A4 inhibitors will result in increased upadacitinib exposure.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Upadacitinib	Clarithromycin Cobicistat Indinavir Itraconazole Ketoconazole Nefazodone	Nelfinavir Posaconazole Ritonavir Saquinavir Voriconazole

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

11. Upadacitinib / Strong CYP3A4 Inducers

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Alert Message: The co-administration of Rinvoq (upadacitinib) with strong CYP3A4 inducers is not recommended. Upadacitinib is a CYP3A4 substrate, and concurrent use with a strong CYP3A4 inducer will result in decreased upadacitinib exposure, which may lead to reduced therapeutic effect of upadacitinib.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Upadacitinib	Apalutamide Carbamazepine Enzalutamide Mitotane	Phenobarbital Phenytoin Primidone Rifampin

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

12. Upadacitinib / Pregnancy / Pregnancy Negating

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Alert Message: Based on findings in animal studies, Rinvoq (upadacitinib) may cause fetal harm when administered to a pregnant patient. Administration of upadacitinib to rats and rabbits during organogenesis caused increases in fetal malformations. Advise pregnant patients of the potential risk to a fetus. Advise patients of reproductive potential to use effective contraception during treatment with upadacitinib and for 4 weeks following completion of therapy.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C (Negate)</u>
Upadacitinib	Pregnancy	Abortion Delivery Miscarriage

Gender: Female
Age Range: 11 – 50 yoa

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

13. Upadacitinib / Lactation

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Alert Message: There are no data on the presence of Rinvoq (upadacitinib) in human milk, the effects on the breastfed infant, or the effects on milk production. Available pharmacodynamic/toxicological data in animals have shown excretion of upadacitinib in milk. When a drug is present in animal milk, it is likely that the drug will be present in human milk. Because of the potential for serious adverse reactions in the breastfed infant, advise patients that breastfeeding is not recommended during treatment with upadacitinib, and for 6 days (approximately 10 half-lives) after the last dose.

Drugs/Diseases

Util A Util B Util C
Upadacitinib Lactation

Gender: Female
Age Range: 11 – 50 yoa

References:
Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

14. Upadacitinib / Therapeutic Appropriateness

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Alert Message: Advise patients of reproductive potential to use effective contraception during treatment with Rinvoq (upadacitinib) and for 4 weeks following completion of therapy. Based on findings in animal studies, upadacitinib may cause fetal harm when administered to a pregnant patient.

Drugs/Diseases

Util A Util B Util C (Negate)
Upadacitinib Contraceptives

Gender: Female
Age Range: 11 – 50 yoa

References:
Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Rinvoq Prescribing Information, July 2020, AbbVie Inc.

15. Upadacitinib / Non-adherence

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Alert Message: Based on refill history, your patient may be under-utilizing Rinvoq (upadacitinib). Non-adherence to the prescribed dosing regimen may result in sub-therapeutic effects, which may lead to decreased patient outcomes and additional healthcare costs.

Drugs/Diseases

Util A Util B Util C
Upadacitinib

References:
Osterberg, L Blaschke T. Adherence to Medication, N Engl J Med. 2005;353:487-97.
Marengo MF, Suarez-Almazor ME. Improving Treatment Adherence in Patients with Rheumatoid Arthritis: What are the Options? Internat Jrnl Clin Rheum. 2015;10(5):345-356.
van den Bemt BJ, Zwikker HE, van den Ende CH. Medication Adherence in Patients with Rheumatoid Arthritis: A Critical Appraisal of the Existing Literature. Expert Rev Clin Immunol. 2012 May;8(4):337-351.

Criteria Recommendations

**Accepted Approved Rejected
As
Amended**

16. Budesonide/Glycopyrrolate/Formoterol / Overutilization

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Alert Message: The manufacturer's recommended maximum daily dose of Breztri Aerosphere (budesonide/glycopyrrolate/formoterol) is two inhalations twice daily. Excessive use of a formoterol-containing agent or use in conjunction with other medications containing a beta-2-agonist can result in clinically significant cardiovascular effects and may be fatal.

Drugs/Diseases

Util A

Util B

Util C

Budesonide/Glycopyrrolate/Formoterol

Max Dose: 4 inhalations/day

References:

Breztri Aerosphere Prescribing Information, July 2020, AstraZeneca.
Clinical Pharmacology, 2020 Elsevier/Gold Standard.

17. Budesonide/Glycopyrrolate/Formoterol / Therapeutic Appropriateness

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Alert Message: The safety and efficacy of Breztri Aerosphere (budesonide/glycopyrrolate/formoterol) in patients with asthma have not been established. Budesonide/glycopyrrolate/formoterol is not indicated for the treatment of asthma.

Drugs/Diseases

Util A

Util B

Util C (Include)

Budesonide/Glycopyrrolate/Formoterol

Asthma

References:

Breztri Aerosphere Prescribing Information, July 2020, AstraZeneca.
Clinical Pharmacology, 2020 Elsevier/Gold Standard.

18. Budesonide/Glycopyrrolate/Formoterol / Therapeutic Appropriateness

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Alert Message: Breztri Aerosphere (budesonide/glycopyrrolate/formoterol) is not indicated for use in children. The safety and effectiveness of budesonide/glycopyrrolate/formoterol have not been established in children.

Drugs/Diseases

Util A

Util B

Util C

Budesonide/Glycopyrrolate /Formoterol

Age Range: 0 – 17 yoa

References:

Breztri Aerosphere Prescribing Information, July 2020, AstraZeneca.
Clinical Pharmacology, 2020 Elsevier/Gold Standard.

19. Budesonide/Glycopyrrolate/Formoterol / Cardiovascular, Diabetes, Convulsive Disorders, & Thyrotoxicosis

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Alert Message: Breztri Aerosphere (budesonide/glycopyrrolate/formoterol) should be used with caution in patients with cardiovascular or convulsive disorders, thyrotoxicosis, or sensitivity to sympathomimetic drugs. The formoterol component is a sympathomimetic amine and can exacerbate these conditions.

Drugs/Diseases

Util A

Budesonide/Glycopyrrolate/Formoterol

Util B

Hypertension
Arrhythmias
Heart Failure
Diabetes
Seizures
Epilepsy
Thyrotoxicosis

Util C

References:

Breztri Aerosphere Prescribing Information, July 2020, AstraZeneca.
Clinical Pharmacology, 2020 Elsevier/Gold Standard.

20. Budesonide/Glycopyrrolate/Formoterol / Adrenergic Drugs

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Alert Message: Caution should be exercised when Breztri Aerosphere (budesonide/glycopyrrolate/formoterol) is prescribed concurrently with other adrenergic sympathomimetic agents, administered by any route, because the sympathetic effects of the formoterol component of the combination product may be potentiated.

Drugs/Diseases

Util A

Budesonide/Glycopyrrolate/Formoterol

Util B

Amphetamine
Benzphetamine
Dextroamphetamine
Diethylpropion
Ephedrine
Epinephrine
Lisdexamfetamine
Methamphetamine

Util C

Methylphenidate
Naphazoline
Oxymetazoline
Phenylephrine
Phendimetrazine
Phentermine
Pseudoephedrine
Tetrahydrozoline

References:

Breztri Aerosphere Prescribing Information, July 2020, AstraZeneca.
Clinical Pharmacology, 2020 Elsevier/Gold Standard.

Criteria Recommendations

**Accepted Approved Rejected
As
Amended**

21. Budesonide/Glycopyrrolate/Formoterol / Xanthine Derivatives & Steroids

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Alert Message: Caution should be exercised when Breztri Aerosphere (budesonide/glycopyrrolate/formoterol) is prescribed concurrently with xanthine derivatives or steroids because concomitant administration may potentiate the hypokalemic effect of the formoterol component of the combination agent.

Drugs/Diseases

Util A

Budesonide/Glycopyrrolate/Formoterol

Util B

Aminophylline
Dyphylline
Theophylline
Betamethasone
Budesonide
Cortisone

Dexamethasone
Hydrocortisone
Methylprednisolone
Prednisolone
Prednisone

Util C

References:

Breztri Aerosphere Prescribing Information, July 2020, AstraZeneca.
Clinical Pharmacology, 2020 Elsevier/Gold Standard.

22. Budesonide/Glycopyrrolate/Formoterol / Non-Potassium Sparing Diuretics

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Alert Message: Caution should be exercised when Breztri Aerosphere (budesonide/glycopyrrolate/formoterol), a beta2-agonist containing combo product, is prescribed concurrently with non-potassium-sparing diuretics. The hypokalemia and/or ECG changes that may result from the administration of non-potassium sparing diuretics (such as loop or thiazide diuretics) can be acutely worsened by beta2-agonists, especially when the recommended dose of the beta2-agonist is exceeded.

Drugs/Diseases

Util A

Budesonide/Glycopyrrolate/Formoterol

Util B

Bumetanide
Furosemide
Chlorothiazide
Chlorthalidone
HCTZ

Indapamide
Metolazone
Torsemide

Util C

References:

Breztri Aerosphere Prescribing Information, July 2020, AstraZeneca.
Clinical Pharmacology, 2020 Elsevier/Gold Standard.

23. Budesonide/Glycopyrrolate/Formoterol / Nonselective Beta Blockers

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Alert Message: Concurrent use of a beta-adrenergic blocker with Breztri Aerosphere (budesonide/glycopyrrolate/formoterol), a beta2-agonist containing combo product, may diminish the pulmonary effect of the beta-agonist component, formoterol. Beta-blockers not only block the therapeutic effects of beta2-agonists but may produce severe bronchospasm in patients with COPD. If concomitant therapy cannot be avoided, consider a cardioselective beta-blocker, but administer with caution.

Drugs/Diseases

Util A

Budesonide/Glycopyrrolate/Formoterol

Util B

Carvedilol

Labetalol

Nadolol

Pindolol

Propranolol

Sotalol

Timolol

Util C (Negating)

Acebutolol

Atenolol

Betaxolol

Bisoprolol

Metoprolol

Nebivolol

References:

Breztri Aerosphere Prescribing Information, July 2020, AstraZeneca.

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

24. Budesonide/Glycopyrrolate/Formoterol / QT Prolonging Meds

Alert Message: Breztri Aerosphere (budesonide/glycopyrrolate/formoterol) should be administered with extreme caution to patients being treated with MAOIs, TCAs, or other drugs known to prolong the QTc interval because the action of the adrenergic agonist, formoterol, on the cardiovascular system may be potentiated by these agents.

Drugs/Diseases

Util A

Budesonide/Glyco/Form

Util B

Abiraterone

Alfuzosin

Amiodarone

Amitriptyline

Amoxapine

Anagrelide

Aripiprazole

Arsenic Trioxide

Artemether/Lum

Asenapine

Atazanavir

Atomoxetine

Azithromycin

Bedaquiline

Bortezomib

Bendamustine

Bosutinib

Buprenorphine

Ceritinib

Chloroquine

Chlorpromazine

Cilostazol

Ciprofloxacin

Citalopram

Clarithromycin

Clomipramine

Clozapine

Crizotinib

Dabrafenib

Dasatinib

Desipramine

Deutetrabenazine

Diphenhydramine

Disopyramide

Dofetilide

Dolasetron

Donepezil

Doxepin

Dronedarone

Efavirenz

Eliglustat

Encorafenib

Entrectinib

Eribulin

Erythromycin

Escitalopram

Ezogabine

Famotidine

Felbamate

Fingolimod

Flecainide

Fluconazole

Fluoxetine

Fluvoxamine

Foscarnet

Galantamine

Ganciclovir

Gemfloxacin

Gilteritinib

Glasdegib

Granisetron

Haloperidol

Hydroxychloroquine

Hydroxyzine

Ibutilide

Iloperidone

Imipramine

Indapamide

Indinavir

Isocarboxazid

Itraconazole

Ivosidenib

Ivabradine

Ketoconazole

Lapatinib

Lefamulin

Lenvatinib

Leuprolide

Lithium

Lofexidine

Loperamide

Maprotiline

Methadone

Metoclopramide

Midostaurin

Mifepristone

Mirabegron

Mirtazapine

Moexipril

Moxifloxacin

Nelfinavir

Nilotinib

Nortriptyline

Ofloxacin

Ondansetron

Osimertinib

Oxaliplatin

Paliperidone

Palonosetron

Panobinostat

Paroxetine

Pasireotide

Pazopanib

Pentamidine

Pimavanserin

Pimozide

Pitolisant

Phenelzine

Posaconazole

Procainamide

Promethazine

Propafenone

Protriptyline

Quetiapine

Quinidine

Quinine

Ranolazine

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Util C

Rilpivirine

Risperidone

Ritonavir

Romidepsin

Saquinavir

Sertraline

Siponimod

Solifenacin

Sotalol

Sunitinib

Tacrolimus

Tamoxifen

Telavancin

Tetrabenazine

Thioridazine

Tizanidine

Tolterodine

Toremifene

Tramadol

Trazodone

Tranylcypromine

Trimipramine

Valbenazine

Vandetanib

Vemurafenib

Venlafaxine

Voriconazole

References:

Breztri Aerosphere Prescribing Information, July 2020, AstraZeneca.
Clinical Pharmacology, 2020 Elsevier/Gold Standard.

25. Budesonide/Glycopyrrolate/Formoterol / Anticholinergics

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Alert Message: The concurrent use of Breztri Aerosphere (budesonide/glycopyrrolate/formoterol) with anticholinergic agents should be avoided. The glycopyrrolate component of the combo product is an anticholinergic agent, and concomitant use with other anticholinergics may lead to an increase in anticholinergic adverse effects.

Drugs/Diseases

Util A

Budesonide/Glycopyrrolate/Formoterol

Util B

Benztropine
Darifenacin
Dicyclomine
Fesoterodine
Flavoxate
Glycopyrrolate
Hyoscyamine
Methscopolamine
Orphenadrine

Util C

Oxybutynin
Propantheline
Scopolamine
Solifenacin
Tolterodine
Trihexyphenidyl
Trospium

References:

Breztri Aerosphere Prescribing Information, July 2020, AstraZeneca.
Clinical Pharmacology, 2020 Elsevier/Gold Standard.

26. Budesonide/Glycopyrrolate/Formoterol / Other LABAs

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Alert Message: Breztri Aerosphere (budesonide/glycopyrrolate/formoterol) should not be used in conjunction with other medications containing a LABA, as an overdose may result. Clinically significant cardiovascular effects and fatalities have been reported in association with excessive use of inhaled sympathomimetic drugs.

Drugs/Diseases

Util A

Budesonide/Glycopyrrolate/Formoterol

Util B

Arformoterol
Formoterol
Indacaterol
Olodaterol
Salmeterol
Vilanterol

Util C

References:

Breztri Aerosphere Prescribing Information, July 2020, AstraZeneca.
Clinical Pharmacology, 2020 Elsevier/Gold Standard.

27. Budesonide/Glycopyrrolate/Formoterol /Strong CYP3A4 Inhibitors

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Alert Message: Caution should be exercised when co-administering Breztri Aerosphere (budesonide/glycopyrrolate/formoterol) with long-term ketoconazole or other known strong CYP3A4 inhibitors. The budesonide component of the combination inhalation product is a CYP3A4 substrate, and the concurrent use with a strong CYP3A4 inhibitor can result in increased budesonide plasma concentrations and risk of budesonide-related adverse effects.

Drugs/Diseases

Util A

Budesonide/Glycopyrrolate/Formoterol

Util B

Cobicistat

Indinavir

Itraconazole

Ketoconazole

Nefazodone

Posaconazole

Ritonavir

Saquinavir

Voriconazole

Util C

References:

Breztri Aerosphere Prescribing Information, July 2020, AstraZeneca.

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

28. Osilodrostat / Overuse

 v

Alert Message: Isturisa (osilodrostat) may be over-utilized. The recommended maximum dose of osilodrostat is 30 mg twice daily. The maintenance dosage varied between 2 mg and 7 mg twice daily in clinical trials.

Drugs/Diseases

Util A

Osilodrostat

Util B

Util C

Max Dose: 60 mg/day

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

Isturisa Prescribing Information, March 2020, Recordati Rate Diseases, Inc.

29. Osilodrostat / Therapeutic Appropriateness

 v

Alert Message: The safety and effectiveness of Isturisa (osilodrostat) in pediatric patients have not been established.

Drugs/Diseases

Util A

Osilodrostat

Util B

Util C

Age Range: 0 – 17 yoa

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

Isturisa Prescribing Information, March 2020, Recordati Rate Diseases, Inc.

30. Osilodrostat / Therapeutic Appropriateness

v _____

Alert Message: Isturisa (osilodrostat) is associated with a dose-dependent QT interval prolongation (maximum mean estimated QTcF increase of up to 5.3 ms at 30 mg), which may cause cardiac arrhythmias. Use osilodrostat with caution in patients with risk factors for QT prolongation (such as congenital long QT syndrome, congestive heart failure, bradyarrhythmias, uncorrected electrolyte abnormalities, and concomitant medications known to prolong the QT interval) and consider more frequent ECG monitoring.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Osilodrostat	QT Prolongation Heart Failure Bradyarrhythmias Hypomagnesemia Hypokalemia	

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Isturisa Prescribing Information, March 2020, Recordati Rate Diseases, Inc.

31. Osilodrostat / Strong CYP3A4 Inhibitor

v _____

Alert Message: Concomitant use of Isturisa (osilodrostat) with a strong CYP3A4 inhibitor (e.g., itraconazole, clarithromycin) may cause an increase in osilodrostat plasma concentrations, increasing the risk of osilodrostat-related adverse reactions. Reduce the dose of osilodrostat by half with concomitant use of a strong CYP3A4 inhibitor.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Osilodrostat	Clarithromycin Cobicistat Indinavir Itraconazole Ketoconazole Nefazodone	Nelfinavir Posaconazole Ritonavir saquinavir Voriconazole

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Isturisa Prescribing Information, March 2020, Recordati Rate Diseases, Inc.
FDA: Drug Development and Drug Interactions: Tables of Substrates, Inhibitors, and Inducers. Available at:
<http://www.fda.gov/Drugs/DevelopmentApprovalProcess/DevelopmentResources/DrugInteractionalabeling/ucm093664.htm>

32. Osilodrostat / Strong CYP3A4 and CYP2B6 Inducers

_____v_____

Alert Message: Concomitant use of Isturisa (osilodrostat) with strong CYP3A4 and/or CYP2B6 inducers (e.g., carbamazepine, rifampin, phenobarbital) may cause a decrease in osilodrostat plasma concentrations and may reduce the efficacy of osilodrostat. During concomitant use of osilodrostat with strong CYP3A4 and CYP2B6 inducers, monitor cortisol concentrations and patient's signs and symptoms. An increase in osilodrostat dosage may be needed.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Osilodrostat	Apalutamide Carbamazepine Phenobarbital Phenytoin Primidone Rifampin	

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

Isturisa Prescribing Information, March 2020, Recordati Rate Diseases, Inc.

FDA: Drug Development and Drug Interactions: Tables of Substrates, Inhibitors, and Inducers. Available at:

<http://www.fda.gov/Drugs/DevelopmentApprovalProcess/DevelopmentResources/DrugInteractionalabeling/ucm093664.htm>

33. Osilodrostat / CYP1A2 and CYP2C19 Substrates

_____v_____

Alert Message: Isturisa (osilodrostat) should be used with caution when coadministered with CYP1A2 and CYP2C19 substrates with a narrow therapeutic index, such as theophylline, tizanidine, and omeprazole. In drug studies, osilodrostat has shown inhibition potential of CYP1A2 and CYP2C19 isozymes.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Osilodrostat	Alosetron Duloxetine Omeprazole Ramelteon Tasimelteon Tizanidine Theophylline	

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

Isturisa Prescribing Information, March 2020, Recordati Rate Diseases, Inc.

FDA: Drug Development and Drug Interactions: Tables of Substrates, Inhibitors, and Inducers. Available at:

<http://www.fda.gov/Drugs/DevelopmentApprovalProcess/DevelopmentResources/DrugInteractionalabeling/ucm093664.htm>

Criteria Recommendations

**Accepted Approved Rejected
As
Amended**

34. Osilodrostat / Therapeutic Appropriateness

 v

Alert Message: There are no available data on the presence of Isturisa (osilodrostat) in human or animal milk, the effects on the breastfed infant, or the effects on milk production. Because of the potential for serious adverse reactions (such as adrenal insufficiency) in the breastfed infant, advise patients that breastfeeding is not recommended during treatment with osilodrostat and for one week after the final dose.

Drugs/Diseases

Util A Util B Util C
Osilodrostat Lactation

Gender: Female
Age Range: 11 – 50 yoa

References:
Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Isturisa Prescribing Information, March 2020, Recordati Rate Diseases, Inc.

35. Osilodrostat / Non-adherence

 v

Alert Message: Based on refill history, your patient may be under-utilizing Isturisa (osilodrostat). Non-adherence to the prescribed dosing regimen may result in sub-therapeutic effects, which may lead to decreased patient outcomes and additional healthcare costs.

Drugs/Diseases

Util A Util B Util C
Osilodrostat

References:
Osterberg L, Blaschke T. Adherence to Medication. N Engl J Med 2005;353:487-97.
Brown MT, Bussell J, Supmarna D, et al. Medication Adherence: Truth and Consequences. Am J Med Sci. 2016 Apr;351(4):387-399.
Iuga AO, McGuire MJ. Adherence and Health Care Costs. Risk Manag Healthc Policy. 2014 Feb 20;7:35-44.

36. Osilodrostat / Therapeutic Appropriateness

Alert Message: Isturisa (osilodrostat) is associated with a dose-dependent QT interval prolongation (maximum mean estimated QTcF increase of up to 5.3 ms at 30 mg), which may cause cardiac arrhythmias. Use osilodrostat with caution in patients with risk factors for QT prolongation (such as congenital long QT syndrome, congestive heart failure, bradyarrhythmias, uncorrected electrolyte abnormalities, and concomitant medications known to prolong the QT interval) and consider more frequent ECG monitoring.

v _____

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>			<u>Util C</u>
Osilodrostat	Abiraterone	Efavirenz	Lithium	Rilpivirine
	Alfuzosin	Eliglustat	Lofexidine	Risperidone
	Amiodarone	Encorafenib	Loperamide	Ritonavir
	Amitriptyline	Entrectinib	Maprotiline	Romidepsin
	Amoxapine	Eribulin	Methadone	Saquinavir
	Anagrelide	Erythromycin	Metoclopramide	Sertraline
	Aripiprazole	Escitalopram	Midostaurin	Siponimod
	Arsenic Trioxide	Ezogabine	Mifepristone	Solifenacin
	Artemether/Lum	Famotidine	Mirabegron	Sotalol
	Asenapine	Felbamate	Mirtazapine	Sunitinib
	Atazanavir	Fingolimod	Moexipril	Tacrolimus
	Atomoxetine	Flecainide	Moxifloxacin	Tamoxifen
	Azithromycin	Fluconazole	Nelfinavir	Telavancin
	Bedaquiline	Fluoxetine	Nilotinib	Tetrabenazine
	Bortezomib	Fluvoxamine	Nortriptyline	Thioridazine
	Bendamustine	Foscarnet	Ofloxacin	Tizanidine
	Bosutinib	Galantamine	Ondansetron	Tolterodine
	Buprenorphine	Ganciclovir	Osimertinib	Toremifene
	Ceritinib	Gemifloxacin	Oxaliplatin	Tramadol
	Chloroquine	Gilteritinib	Paliperidone	Trazodone
	Chlorpromazine	Glasdegib	Palonosetron	Tranlycypromine
	Cilostazol	Granisetron	Panobinostat	Trimipramine
	Ciprofloxacin	Haloperidol	Paroxetine	Valbenazine
	Citalopram	Hydroxychloroquine	Pasireotide	Vandetanib
	Clarithromycin	Hydroxyzine	Pazopanib	Vemurafenib
	Clomipramine	Ibutilide	Pentamidine	Venlafaxine
	Clozapine	Iloperidone	Pimavanserin	Voriconazole
	Crizotinib	Imipramine	Pimozide	
	Dabrafenib	Indapamide	Pitolisant	
	Dasatinib	Indinavir	Phenelzine	
	Desipramine	Isocarboxazid	Posaconazole	
	Deutetrabenazine	Itraconazole	Procainamide	
	Diphenhydramine	Ivosidenib	Promethazine	
	Disopyramide	Ivabradine	Propafenone	
	Dofetilide	Ketoconazole	Protriptyline	
	Dolasetron	Lapatinib	Quetiapine	
	Donepezil	Lefamulin	Quinidine	
	Doxepin	Lenvatinib	Quinine	
	Dronedarone	Leuprolide	Ranolazine	

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Isturisa Prescribing Information, March 2020, Recordati Rare Diseases, Inc.

Criteria Recommendations

**Accepted Approved Rejected
As
Amended**

37. Rosuvastatin Sprinkle / Overuse

_____v_____

Alert Message: Ezallor Sprinkle (rosuvastatin) may be over-utilized. The recommended maximum dosage of rosuvastatin is 40 mg once daily.

Drugs/Diseases

Util A

Util B

Util C (Negating)

Rosuvastatin sprinkle

CKD Stage 4 & 5

Gemfibrozil

ESRD

Glecaprevir/Pibrentasvir

Atazanavir

Lopinavir/rtv

Cyclosporine

Regorafenib

Darolutamide

Sofosbuvir/Velpatasvir

Elbasvir/Grazoprevir

Ombitasvir/Paritaprevir/Ritonavir/Dasabuvir

Max Dose: 40 mg/day

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

Ezallor Prescribing Information, Sept. 2020, Sun Pharmaceuticals Industries.

38. Rosuvastatin Sprinkle / Therapeutic Appropriateness

_____v_____

Alert Message: The safety and effectiveness of Ezallor Sprinkle (rosuvastatin) have not been established in pediatric patients.

Drugs/Diseases

Util A

Util B

Util C

Rosuvastatin Sprinkle

Age Range: 0 – 17 yoa

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

Ezallor Prescribing Information, Sept. 2020, Sun Pharmaceuticals Industries.

39. Rosuvastatin Sprinkle / Hepatic Impairment

_____v_____

Alert Message: Ezallor Sprinkle (rosuvastatin) use is contraindicated in patients with active liver disease, which may include unexplained persistent elevations of hepatic transaminase levels.

Drugs/Diseases

Util A

Util B

Util C (Include)

Rosuvastatin sprinkle

Hepatic Impairment

Max Dose

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

Ezallor Prescribing Information, Sept. 2020, Sun Pharmaceuticals Industries.

Criteria Recommendations

**Accepted Approved Rejected
As
Amended**

40. Rosuvastatin Sprinkle / Severe Renal Impairment

 ✓

Alert Message: For patients with severe renal impairment (CLcr < 30 mL/min/1.73 m²) not on hemodialysis, dosing of Ezallor Sprinkle (rosuvastatin) should be started at 5 mg once daily and not exceed 10 mg once daily.

Drugs/Diseases

Util A

Util B

Util C (Include)

Rosuvastatin sprinkle

CKD Stage 4 & 5
ESRD

Max Dose: 5 mg/day

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

Ezallor Prescribing Information, Sept. 2020, Sun Pharmaceuticals Industries.

41. Rosuvastatin Sprinkle / Gemfibrozil

 ✓

Alert Message: Due to the observed increased risk of myopathy/rhabdomyolysis, the concurrent use of Ezallor Sprinkle (rosuvastatin) with gemfibrozil should be avoided. If concomitant use cannot be avoided, initiate rosuvastatin at 5 mg once daily. The dose of rosuvastatin should not exceed 10 mg once daily.

Drugs/Diseases

Util A

Util B

Util C

Rosuvastatin sprinkle

Gemfibrozil

Max Dose: 10 mg/day

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

Ezallor Prescribing Information, Sept. 2020, Sun Pharmaceuticals Industries.

42. Rosuvastatin Sprinkle / Cyclosporine

 ✓

Alert Message: The dose of Ezallor Sprinkle (rosuvastatin) should not exceed 5 mg once daily when coadministered with cyclosporine. Rosuvastatin is a BCRP and OATP1B1 substrate, and concurrent use with cyclosporine, a BCRP and OATP1B1 transport inhibitor, has been shown to elevate rosuvastatin plasma concentrations, increasing the risk of rosuvastatin-associated adverse reactions (e.g., myopathy and rhabdomyolysis).

Drugs/Diseases

Util A

Util B

Util C

Rosuvastatin sprinkle

Cyclosporine

Max Dose: 5 mg/day

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

Ezallor Prescribing Information, Sept. 2020, Sun Pharmaceuticals Industries.

Criteria Recommendations

**Accepted Approved Rejected
As
Amended**

43. Rosuvastatin Sprinkle / Darolutamide

√ _____

Alert Message: The dose of Ezallor Sprinkle (rosuvastatin) should not exceed 5 mg once daily when co-administered Nubeqa (darolutamide). Rosuvastatin is a BCRP substrate, and concurrent use with darolutamide, a BCRP transport inhibitor, has been shown to elevate rosuvastatin plasma concentrations, increasing the risk of rosuvastatin-associated adverse reactions (e.g., myopathy and rhabdomyolysis).

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Rosuvastatin sprinkle	Darolutamide	

Max Dose: 5 mg/day

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Ezallor Prescribing Information, Sept. 2020, Sun Pharmaceuticals Industries.

44. Rosuvastatin Sprinkle / Regorafenib

√ _____

Alert Message: The dose of Ezallor Sprinkle (rosuvastatin) should not exceed 10 mg once daily when co-administered with regorafenib. Rosuvastatin is a BCRP substrate, and concurrent use with regorafenib, a BCRP transport inhibitor, has been shown to elevate rosuvastatin plasma concentrations, increasing the risk of rosuvastatin-associated adverse reactions (e.g., myopathy and rhabdomyolysis).

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Rosuvastatin sprinkle	Regorafenib	

Max dose: 10 mg/day

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Ezallor Prescribing Information, Sept. 2020, Sun Pharmaceuticals Industries.

45. Rosuvastatin Sprinkle / Lopinavir & Atazanavir

√ _____

Alert Message: The dose of Ezallor Sprinkle (rosuvastatin) should not exceed 10 mg once daily when co-administered with lopinavir/ritonavir or ritonavir-boosted atazanavir. Lopinavir and atazanavir are OATP1B1 transport inhibitors, and concurrent use with rosuvastatin, an OATP1B1 substrate, may elevate rosuvastatin plasma concentrations and increase the risk of rosuvastatin-related adverse reactions (e.g., myopathy and rhabdomyolysis).

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Rosuvastatin sprinkle	Atazanavir Lopinavir/Ritonavir	

Max Dose: 10 mg/day

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Ezallor Prescribing Information, Sept. 2020, Sun Pharmaceuticals Industries.

49. Rosuvastatin Sprinkle / Glecaprevir/Pibrentasvir

 √ _____ _____

Alert Message: The dose of Ezallor Sprinkle (rosuvastatin) should not exceed 10 mg per day when co-administered with Mavyret (glecaprevir/pibrentasvir). Rosuvastatin is a BCRP, OATP1B1, and OATP1B3 substrate. The components of the antiviral combination product inhibit BCRP-, OATP1B1-, and OAT1B3-mediated transport. Concurrent use of these agents may result in increased rosuvastatin plasma concentrations and risk of rosuvastatin-related adverse effects (e.g., myopathy and rhabdomyolysis).

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Rosuvastatin sprinkle	Glecaprevir/Pibrentasvir	

Max Dose: 10 mg/day

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Ezallor Prescribing Information, Sept. 2020, Sun Pharmaceuticals Industries.

50. Rosuvastatin Sprinkle / Atazanavir/Cobicistat

 √ _____ _____

Alert Message: The dose of Ezallor Sprinkle (rosuvastatin) should not exceed 10 mg once daily when co-administered with Evotaz (atazanavir/cobicistat). The components of the antiretroviral combination product inhibit BCRP-, OATP1B1-, and OAT1B3-mediated transport. Concurrent use of these agents may result in increased rosuvastatin plasma concentrations and risk of rosuvastatin-related adverse effects (e.g., myopathy and rhabdomyolysis).

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C</u>
Rosuvastatin sprinkle	Atazanavir/Cobicistat	

Max Dose: 10 mg/day

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Ezallor Prescribing Information, Sept. 2020, Sun Pharmaceuticals Industries.

51. Rosuvastatin Sprinkle / Pregnancy / Pregnancy Negating

 √ _____ _____

Alert Message: Ezallor Sprinkle (rosuvastatin) is contraindicated for use in pregnant patients since safety in these patients has not been established, and there is no apparent benefit to therapy with rosuvastatin during pregnancy. Because HMG-CoA reductase inhibitors decrease cholesterol synthesis and possibly the synthesis of other biologically active substances derived from cholesterol, rosuvastatin may cause fetal harm when administered to pregnant patients. Rosuvastatin should be discontinued as soon as pregnancy is recognized.

Drugs/Diseases

<u>Util A</u>	<u>Util B</u>	<u>Util C (Negate)</u>
Rosuvastatin sprinkle	Pregnancy	Abortion Delivery Miscarriage

Gender: Female
Age Range: 11 – 50 yoa

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.
Ezallor Prescribing Information, Sept. 2020, Sun Pharmaceuticals Industries.

52. Rosuvastatin Sprinkle / Therapeutic Appropriateness

___v___

Alert Message: Ezallor Sprinkle (rosuvastatin) use is contraindicated during breastfeeding. Limited data indicate that rosuvastatin is present in human milk. There is no available information on the effects of the drug on the breastfed infant or the effects of the drug on milk production. Because of the potential for serious adverse reactions in a breastfed infant, advise patients that breastfeeding is not recommended during treatment with rosuvastatin.

Drugs/Diseases

Util A

Rosuvastatin sprinkle

Util B

Lactation

Util C

Gender: Female

Age Range: 11 – 50 yoa

References:

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

Ezallor Prescribing Information, Sept. 2020, Sun Pharmaceuticals Industries.

53. Budesonide/Glycopyrrolate/Formoterol / Narrow Angle Glaucoma

___v___

Alert Message: Breztri Aerosphere (budesonide/glycopyrrolate/formoterol) should be used with caution in patients with narrow-angle glaucoma. Glaucoma, increased intraocular pressure, and cataracts have been reported in patients with COPD following the long-term administration of ICS or with the use of inhaled anticholinergics. Prescribers and patients should be alert for signs and symptoms of acute narrow-angle glaucoma. Instruct patients to consult a physician immediately should any signs or symptoms develop. Consider referral to an ophthalmologist in patients who develop ocular symptoms.

Drugs/Diseases

Util A

Budesonide/Glycopyrrolate/Formoterol

Util B

Narrow Angle Glaucoma

Util C

References:

Breztri Aerosphere Prescribing Information, July 2020, AstraZeneca.

Clinical Pharmacology, 2020 Elsevier/Gold Standard.

54. Budesonide/Glycopyrrolate/Formoterol / Non-adherence

___v___

Alert Message: Based on refill history, your patient may be under-utilizing Breztri Aerosphere (budesonide/glycopyrrolate/formoterol). Non-adherence to the prescribed dosing regimen may result in sub-therapeutic effects, which may lead to decreased outcomes and additional healthcare costs.

Drugs/Diseases

Util A

Budesonide/Glycopyrrolate/Formoterol

Util BUtil C

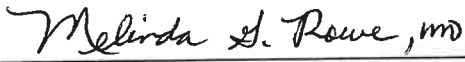
References:

van Boven JF, Chavannes NH, van der Molen T, et al. Clinical and Economic Impact of Non-adherence in COPD: A Systematic Review. *Respir Med.* 2015 Jan;108(1):103-113.Restrepo RD, Alvarez MT, Wittnebel LD, et al., Medication Adherence Issues in Patients Treated for COPD. *International Journal of COPD.* 2008;3(3):371-384.Simoni-Wastila L, Wei Y, Qian J, et al., Association of Chronic Obstructive Pulmonary Disease Maintenance Medication Adherence With All-Cause Hospitalization and Spending in a Medicare Population. *Am J Geriatr Pharmacother.* 2012 Jun;10(3):201-210.Lareau SC, Yawn BP. Improving Adherence with Inhaler Therapy in COPD. *International Journal COPD.* 2010 Nov 24;5:401-406.


Stephanie McGee Azar, Commissioner

Approve () Deny

8-19-2021
Date


Melinda G. Rowe, MD, MBA, MPH
Assistant Medical Director

Approve () Deny

8/19/2021
Date


Ginger Wettingfeld, Deputy Commissioner

Approve () Deny

8/19/21
Date