Alabama Medicaid DUR Board Meeting Minutes
July 25, 2018

Members Present: Kelli Littlejohn Newman, Robert Moon, Marilyn Bulloch, Rachel Seaman, Paula Thompson, Denyse Thornley-Brown, Kenny Murray, P.J. Hughes

Also Present: Tiffany Minnifield, Lori Thomas, Heather Vega, Whitney Hughley

Present via Conference Call: Kristian Testerman, Samir Hadid, Amy Donaldson, Joshua Lee, Allana Alexander, Lydia Rather

Members Absent: Dan McConaghy, Donald Kern, Chris Phung, Bernie Olin

Call to Order: The DUR meeting was called to order by M. Bulloch at approximately 1:01p.m.

Review and Adoption of Minutes: The minutes of the April 26, 2018 meeting were presented and D. Thornley-Brown made a motion to approve the minutes. K. Murray 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 2018. She reported 10,811 total manual requests and 18,437 total electronic requests. From the Prior Authorization and Override Response Time Ratio report for January 2018, L. Thomas reported that approximately 84% of all manual PAs and 86% of all overrides were completed in less than two hours. Ninety-one percent of all manual PAs and 93% of all overrides were completed in less than four hours. Ninety-four percent of all manual PAs and 95% of all overrides were completed in less than eight hours. For the month of February 2018, L. Thomas reported 11,180 manual PA requests and 20,180 electronic PA requests were received. She reported that 71% of all manual PAs and 69% of all overrides were completed in less than two hours. Eighty-nine percent of all manual PAs and 88% of all overrides were completed in less than four hours. Ninety-one percent of all manual PAs and 89% of all overrides were completed in less than eight hours. For the month of March 2018, L. Thomas reported 12,874 manual PA requests and 23,782 electronic PA requests. L. Thomas reported that approximately 68% of all manual PAs and 66% of all overrides were completed in less than two hours. Eighty-seven percent of all manual PA requests and all overrides were completed in less than four hours. Eighty-nine percent of all manual PA requests and 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 July 2017 – December 2017. She reported 3,605,286 total prescriptions, 218,277 average recipients per month using pharmacy benefits, and an average paid per prescription of $105.08.

Cost Management Analysis: L.Thomas reported an average cost per claim of $104.23 for December 2017 and emphasized that the table contained the average cost per claim over the past two years. From the 4th Quarter 2016 Drug Analysis, L.Thomas reported 79.3% generic utilization, 8.9% brand single-source, 8% brand multi-source (those requests which required a DAW override), and 3.8% OTC and "other". From the Top 25 Drugs Based on Number of Claims from 10/01/2017 – 12/31/2017, L.Thomas reported the top five drugs: amoxicillin, cetirizine, ProAir® HFA, hydrocodone-acetaminophen, and azithromycin. L. Thomas then reported the top five drugs from the Top 25 Drugs Based on Claims Cost from 10/01/2017 – 12/31/2017: Vyvanse®, Focalin XR®, Invega® Sustenna®, Concerta®, and ProAir®HFA. She reminded the Board that Vyvanse® and Focalin XR® are preferred agents. 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, Amphetamines, Respiratory and CNS Stimulants, Miscellaneous Anticonvulsants, and Insulins.

Opioid Overview: K. Newman reviewed the status of the Agency's work of upcoming opioid edits. The Agency is working toward a phase-in approach beginning later this year. Discussion from the group segued into the opioid refill tolerance proposal.

Review of Alabama Medicaid Refill Tolerance Policy: K. Newman began the review of Alabama Medicaid's Administrative Code pertaining to the Refill Tolerance Policy. She introduced a proposed change to the timely refill policy surrounding controlled substances. The recommendation would allow pharmacies to dispense refill medication to recipeints once the patient has used at least 85% of the original supply of the controlled substances. P. Thompson recommended that the policy be modified to pertain to only full and partial agonist opioids. The Board approved the changes for the refill tolerance threshold as amended. R. Seaman seconded the motion and the motion was approved unanimously.

RDUR Intervention Report: L. Thomas presented the RDUR Activity Report for January 2018. She reported 533 profiles reviewed and 490 letters sent with 48 responses received as of the date of the report. She reported 24 of 38 physicians indicated that they found the RDUR letters "useful" or "extremely useful". The criteria for the cycle of intervention letters included Therapeutic Duplication of atypical antipsychotics and Appropriate Use (concurrent use of buprenorphine and pure opiate agonists). L. Thomas then presented the RDUR Activity Report for April 2018. She reported 551 profiles reviewed and 594 letters sent with 66 responses received as of the date of the report. She reported 32 of 67 physicians indicated that they found the RDUR letters "useful" or "extremely useful". The criteria for the cycle of intervention letters included Overuse Precaution (appropriate use of immediate-release opioids) and Appropriate Use (concurrent use of buprenorphine and pure opiate agonists).

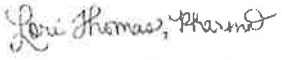
Proposed Criteria: L.Thomas presented the proposed set of 53 criteria to the Board. T.Minnifield instructed the Board members to mark their ballots. Of the 53 criteria, results from the criteria vote returned 50 approved and 3 approved as amended.

Medicaid Update: T. Minnifield reminded the Board members that all updated Medicaid drug lists provided are also available online and that the next DUR Meeting would be October 24th . T. Minnifield reminded the Board that every July the Board would vote on a Vice Chair and asked the members to mark their ballots and pass them to the front. Results of the vote elected Paula Thompson as Vice Chair. The current Vice Chair, Dr. Denyse Thornley-Brown will begin her term as Chairman of the board beginning with the October 2018 meeting.

P & T Committee Update: K. Newman began the P & T Update by informing the Board that the last meeting was held on May 9, 2018, and covered Skeletal Muscle Relaxants; Opiate Agonists; Opiate Partial Agonists; Antiemetics; Proton Pump Inhibitors; and EENT agents. The next P & T meeting is scheduled for August 8, 2018, at 9 a.m. and will cover the Alzheimer's Agents; Antidepressants; Cerebral Stimulants; Anxiolytics, Sedatives, and Hypnotics; Genitourinary Smooth Muscle Relaxants; and Disease-Modifying Antirheumatic Agents.

Next Meeting Date: A motion to adjourn the meeting was made by K. Murray. D. Thornley-Brown seconded the motion and the meeting was adjourned at 2:48 p.m.

Respectfully submitted,



Lori Thomas, PharmD.

ALABAMA MEDICAID
RETROSPECTIVE DRUG UTILIZATION REVIEW
CRITERIA RECOMMENDATIONS

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

1. Dapagliflozin-Saxagliptin / Overutilization ___V___ _____ _____

Alert Message: Qtern (dapagliflozin-saxagliptin) may be over-utilized. The manufacturer's recommended maximum daily dose of dapagliflozin/saxagliptin is 10 mg dapagliflozin/5 mg saxagliptin once daily.

Conflict Code: ER - Overutilization
Drugs/Diseases

Util A	Util B	Util C **(Negate)**
Dapagliflozin/Saxagliptin		CKD Stage 3, 4 & 5
		ESRD

Max Dose: 10 mg/5 mg per day

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Qtern Prescribing Information, February 2017, AstraZeneca.

2. Dapagliflozin-Saxagliptin / CKD Stage 3, 4 & 5 & ESRD ___V___ _____ _____

Alert Message: Qtern (dapagliflozin/saxagliptin) use is contraindicated in patients with moderate to severe renal impairment, end-stage renal disease or on dialysis. The dapagliflozin component of the combo product causes intravascular volume contraction and can cause renal impairment.

Conflict Code: TA - Therapeutic Appropriateness
Drugs/Diseases

Util A	Util B	Util C **(Include)**
Dapagliflozin/Saxagliptin		CKD Stage 3, 4 & 5
		ESRD

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Qtern Prescribing Information, February 2017, AstraZeneca.

3. Dapagliflozin-Saxagliptin / Therapeutic Appropriateness ___V___ _____ _____

Alert Message: Assessment of renal function is recommended prior to initiation of Qtern (dapagliflozin/saxagliptin) therapy and periodically thereafter. Discontinue dapagliflozin/saxagliptin if estimated glomerular filtration rate (eGFR) falls persistently below 60 mL/min/1.73 m2. Do not initiate dapagliflozin/saxagliptin in patients with an eGFR below 60 mL/min/1.73 m2.

Conflict Code: TA - Therapeutic Appropriateness
Drugs/Diseases

Util A	Util B	Util C
Dapagliflozin/Saxagliptin		

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Qtern Prescribing Information, February 2017, AstraZeneca.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

4. Dapagliflozin-Saxagliptin / Strong CYP3A4/5 Inhibitors ___√_____ _____ _____

Alert Message: Do not co-administer Qtern (dapagliflozin/saxagliptin) with strong CYP3A4/5 inhibitors (e.g., ketoconazole, atazanavir, nefazodone, ritonavir, and clarithromycin). The saxagliptin component of the combo product is a CYP3A4/5 substrate and use with a strong CYP3A4/5 inhibitor is expected to significantly increase saxagliptin plasma concentrations.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Dapagliflozin/Saxagliptin	Itraconazole	Indinavir
	Ketoconazole	Nelfinavir
	Atazanavir	Telithromycin
	Clarithromycin	Nefazodone
	Saquinavir	Cobicistat
	Ritonavir	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Qtern Prescribing Information, February 2017, AstraZeneca.

5. Dapagliflozin-Saxagliptin / Insulin & Insulin Secretagogues ___√_____ _____ _____

Alert Message: The concurrent use of Qtern (dapagliflozin/saxagliptin) with insulin or an insulin secretagogue can increase the risk of hypoglycemia. A lower dose of insulin or insulin secretagogue may be required to minimize the risk of hypoglycemia when used in combination with dapagliflozin/saxagliptin.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Dapagliflozin/Saxagliptin	Insulin	
	Chlorpropamide	
	Tolbutamide	
	Tolazamide	
	Glyburide	
	Glipizide	
	Glimepiride	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Qtern Prescribing Information, February 2017, AstraZeneca.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

6. Dapagliflozin-Saxagliptin / Bladder Cancer ___√___ _____ _____

Alert Message: In clinical trials an increased occurrence of bladder cancer was observed in subjects receiving dapagliflozin (0.17%) as compared to placebo (0.03%). Qtern (dapagliflozin/saxagliptin) should not be used in patients with active bladder cancer and used with caution in patients with a prior history of bladder cancer.

Conflict Code: TA – Therapeutic Appropriateness
Drugs/Diseases

Util A	Util B	Util C **(Include)**
Dapagliflozin/Saxagliptin		Neoplasm of Bladder
		History of Malignant Neoplasm of Bladder

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Qtern Prescribing Information, February 2017, AstraZeneca.

7. Dapagliflozin-Saxagliptin / Hypotension (Loop Diuretics) ___√___ _____ _____

Alert Message: The dapagliflozin component of Qtern (dapagliflozin/saxagliptin) can cause osmotic diuresis which can lead to volume depletion and hypotension, particularly in patients with impaired renal function, elderly patients, or patients on loop diuretics. Before initiating a dapagliflozin-containing agent in patients with one or more of these characteristics, volume status should be assessed and corrected. Patients should be monitored for signs and symptoms during therapy.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Dapagliflozin/Saxagliptin	Furosemide	
	Torsemide	
	Ethacrynate	
	Bumetanide	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Qtern Prescribing Information, February 2017, AstraZeneca.

8. Dapagliflozin-Saxagliptin / Therapeutic Appropriateness (Pediatric) ___√___ _____ _____

Alert Message: Safety and effectiveness of Qtern (dapagliflozin/saxagliptin) in patients under 18 years of age have not been established.

Conflict Code: TA – Therapeutic Appropriateness
Drugs/Diseases

Util A	Util B	Util C
Dapagliflozin/Saxagliptin		

Age Range: 0 - 17 yoa

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Qtern Prescribing Information, February 2017, AstraZeneca.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

9. Dapagliflozin-Saxagliptin / Therapeutic Appropriateness ___√____ _____ _____

Alert Message: The use of Qtern (dapagliflozin/saxagliptin) can cause an increase in LDL-C levels. Patients treated with dapagliflozin/saxagliptin demonstrated a mean percent increase from baseline LDL-cholesterol ranging from 2.1% to 6.9%. Patients receiving dapagliflozin/saxagliptin should have their LDL-C monitored and treated per standard of care.

Conflict Code: TA – Therapeutic Appropriateness

Drugs/Diseases

Util A	Util B	Util C **(Include)**
Dapagliflozin/Saxagliptin		Hypercholesterolemia

References:

Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Qtern Prescribing Information, February 2017, AstraZeneca.

10. Dapagliflozin-Saxagliptin / Nonadherence ___√____ _____ _____

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

Conflict Code: LR - Nonadherence

Drugs/Diseases

Util A	Util B	Util C
Dapagliflozin/Saxagliptin		

References:

Osterberg L, Blaschke T. Adherence to Medication. N Engl J Med 2005; 353:487- 497.
Ho PM, Rumsfeld JS, Masoudi FA, et al., Effect of Medication Nonadherence in Diabetes Mellitus. Cardiology Review, April 2007.
Currie CJ, Peyrot M, Morgan CL, et al. The Impact of Treatment Noncompliance on Mortality in People With Type 2 Diabetes. Diabetes Care 35:1279-1284, June 2012.
Qtern Prescribing Information, February 2017, AstraZeneca.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

11. Dapagliflozin-Saxagliptin / Pregnancy / Pregnancy Negating ___V___ _____ _____

Alert Message: Based on animal data showing renal effects from dapagliflozin, Qtern (dapagliflozin/saxagliptin) is not recommended during the second and third trimesters of pregnancy. The limited available data with dapagliflozin and saxagliptin in pregnant women are not sufficient to determine a drug-associated risk for major birth defects or miscarriage. During pregnancy, consider appropriate alternative therapies.

Conflict Code: MC – Drug (Actual) Disease Precaution

Util A	Util B	Util C **(Negating)**
Dapagliflozin/Saxagliptin	Pregnancy	Delivery
		Abortion
		Miscarriage

References:

Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Qtern Prescribing Information, February 2017, AstraZeneca.
American College of Obstetricians and Gynecologists (ACOG), Committee on Practice Bulletins - Obstetrics. Practice Bulletin No. 137: Gestational Diabetes Mellitus. Obstet Gynecol. 2013:122(2 Pt 1):406-416.
Blumer I, Hadar E, Hadden DR, et al. Diabetes and Pregnancy: An Endocrine Society Clinical Practice Guideline. J Clin Endocrinol Metab. 2013;98(11):406-416.

12. Deutetrabenazine / Depression & Suicidality ___V___ _____ _____

Alert Message: Austedo (deutetrabenazine) is contraindicated in patients who are actively suicidal or who have depression which is untreated or undertreated.

Conflict Code: MC – Drug (Actual) Disease Warning
Drugs/Diseases

Util A	Util B	Util C
Deutetrabenazine	Depression – in partial or unspecified remission	
	Suicidal Ideation	

References:

Facts & Comparisons, 2017 Updates, Wolters Kluwer Health.
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Austedo Prescribing Information, April 2017, Teva Pharmaceuticals.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

13. Deutetrabenazine / Depression _____ ___√____ _____

Alert Message: Caution should be exercised when prescribing Austedo (deutetrabenazine) to patients with a history of depression or prior suicide attempts or ideation. Patients with Huntington's disease are at increased risk for depression, suicidal ideation, or behavior. Deutetrabenazine use is associated with risk of or worsening of depression and suicidality.

Conflict Code: MC – Drug (Actual) Disease Warning

Drugs/Diseases

Util A	Util B	Util C **(Include)**
Deutetrabenazine		Depression in Remission

References:

Facts & Comparisons, 2017 Updates, Wolters Kluwer Health.
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Austedo Prescribing Information, April 2017, Teva Pharmaceuticals.

14. Deutetrabenazine / Hepatic Impairment ___√____ _____ _____

Alert Message: Austedo (deutetrabenazine) use is contraindicated in patients with impaired hepatic function due to the potential for increased deutetrabenazine exposure and greater risk for serious adverse reactions. The effect of hepatic impairment on the pharmacokinetics of deutetrabenazine has not been studied; however in a clinical study conducted with tetrabenazine, a closely related VMAT2 inhibitor, there was a large increase in exposure to tetrabenazine and its active metabolites in patients with hepatic impairment.

Conflict Code: MC – Drug (Actual) Disease Warning

Drugs/Diseases

Util A	Util B	Util C
Deutetrabenazine	Hepatic Impairment	

References:

Facts & Comparisons, 2017 Updates, Wolters Kluwer Health.
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Austedo Prescribing Information, April 2017, Teva Pharmaceuticals.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

15. Deutetrabenazine / MAOIs ___√____ _____ _____

Alert Message: Austedo (deutetrabenazine) is contraindicated in patients taking MAOIs. Deutetrabenazine should not be used in combination with or within a minimum of 14 days of discontinuing therapy with an MAOI. Concurrent use may result in hypertensive crisis due to depletion of monoamines (dopamine, serotonin, norepinephrine, and histamine) from nerve terminals.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Deutetrabenazine	Isocarboxazid	
	Phenelzine	
	Tranylcypromine	
	Linezolid	
	Selegiline	
	Rasagiline	

References:
Facts & Comparisons, 2017 Updates, Wolters Kluwer Health.
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Austedo Prescribing Information, April 2017, Teva Pharmaceuticals.

16. Deutetrabenazine / Reserpine ___√____ _____ _____

Alert Message: Concurrent use of Austedo (deutetrabenazine) with reserpine is contraindicated due to the potential for significant depletion of serotonin and norepinephrine in the CNS. At least 20 days should elapse after stopping reserpine before starting deutetrabenazine.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Deutetrabenazine	Reserpine	

References:
Facts & Comparisons, 2017 Updates, Wolters Kluwer Health.
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Austedo Prescribing Information, April 2017, Teva Pharmaceuticals.

17. Deutetrabenazine / Tetrabenazine ___√____ _____ _____

Alert Message: Concurrent use of Austedo (deutetrabenazine) with tetrabenazine is contraindicated. Deutetrabenazine therapy may be initiated the day following discontinuation of tetrabenazine. Both deutetrabenazine and tetrabenazine are VMAT2 inhibitors and concomitant use may cause synergistic or additive toxicity.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Deutetrabenazine	Tetrabenazine	

References:
Facts & Comparisons, 2017 Updates, Wolters Kluwer Health.
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Austedo Prescribing Information, April 2017, Teva Pharmaceuticals.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

18. Deutetrabenazine / Strong CYP2D6 Inhibitor ___V___ _____ _____

Alert Message: The concurrent use of Austedo (deutetrabenazine) with a strong CYP2D6 inhibitor (e.g., fluoxetine, paroxetine, and quinidine) may markedly increase the exposure to the active metabolites of deutetrabenazine (approximately 3-fold). The total dose of deutetrabenazine should not exceed 36 mg per day in these patients. The maximum single dose should not exceed 18 mg.

Conflict Code: HD – High Dose
Drugs/Diseases

Util A	Util B	Util C **(Include)**
Deutetrabenazine		Paroxetine
		Fluoxetine
		Quinidine
		Bupropion

Max Dose: 36 mg/day

References:
Facts & Comparisons, 2017 Updates, Wolters Kluwer Health.
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Austedo Prescribing Information, April 2017, Teva Pharmaceuticals.

19. Deutetrabenazine / CNS Depressants ___V___ _____ _____

Alert Message: The concurrent use of Austedo (deutetrabenazine) with CNS depressants including alcohol may have additive effects and worsen sedation and somnolence.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Deutetrabenazine	Sedatives/Hypnotics	
	Benzodiazepines	
	Narcotics	

References:
Facts & Comparisons, 2017 Updates, Wolters Kluwer Health.
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Austedo Prescribing Information, April 2017, Teva Pharmaceuticals.

20. Deutetrabenazine / Dopamine Antagonists ___V___ _____ _____

Alert Message: The concurrent use of Austedo (deutetrabenazine), a dopamine depleting agent, with dopamine antagonists may result in increased risk for parkinsonism, neuroleptic malignant syndrome (NMS), and akathisia.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Deutetrabenazine	Antipsychotics	
	Metoclopramide	
	Amoxapine	

References:
Facts & Comparisons, 2017 Updates, Wolters Kluwer Health.
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Austedo Prescribing Information, April 2017, Teva Pharmaceuticals.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

21. Deutetrabenazine / QTc Prolongation, Arrhythmias, Bradycardia Hypokalemia & Hypomagnesemia ___V___ _____ _____

Alert Message: Austedo (deutetrabenazine) use should be avoided in patients with congenital long QT syndrome, cardiac arrhythmias, or history of hypokalemia or hypomagnesemia. At 24 mg, deutetrabenazine has been shown to cause an approximate 4.5 msec mean increase in the QTc.

Conflict Code: MC – Drug (Actual) Disease Warning

Drugs/Diseases

Util A	Util B	Util C
Deutetrabenazine	Long QT Syndrome	
	Arrhythmias	
	Bradycardia	
	Hypokalemia	
	Hypomagnesemia	

References:

Facts & Comparisons, 2017 Updates, Wolters Kluwer Health.
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Austedo Prescribing Information, April 2017, Teva Pharmaceuticals.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*
22. Deutetrabenazine / Medications Causing QT Prolongation	_____	___√____	_____

Alert Message: The concurrent use of Austedo (deutetrabenazine) with medications that are known to prolong QTc should be avoided. At 24 mg, deutetrabenazine has been shown to cause an approximate 4.5 msec mean increase in the QTc.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B					Util C
Deutetrabenazine	Albuterol	Disopyramide	Imipramine	Pazopanib	Thioridazine	
	Alfuzosin	Dofetilide	Indapamide	Pentamidine	Tizanidine	
	Amantadine	Dolasetron	Isradipine	Pimozide	Tolterodine	
	Amiodarone	Doxepin	Itraconazole	Posaconazole	Trazodone	
	Amitriptyline	Dronedarone	Ketoconazole	Procainamide	TMP/SMZ	
	Amphetamine	Droperidol	Lapatinib	Propafenone	Trimipramine	
	Arsenic Trioxide	Ephedrine	Levalbuterol	Protriptyline	Vandetanib	
	Asenapine	Epinephrine	Levofloxacin	Quetiapine	Vardenafil	
	Atazanavir	Erythromycin	Lithium	Quinidine	Venlafaxine	
	Atomoxetine	Escitalopram	Metaproterenol	Ranolazine	Ziprasidone	
	Azithromycin	Felbamate	Methadone	Risperidone	Zolmitriptan	
	Chloral Hydrate	Flecainide	Moexipril/HCTZ	Ritonavir	Ezogabine	
	Chloroquine	Fluconazole	Moxifloxacin	Salmeterol	Apomorphine	
	Chlorpromazine	Fluoxetine	Nicardipine	Saquinavir		
	Ciprofloxacin	Foscarnet	Nilotinib	Sertraline		
	Citalopram	Fosphenytoin	Norfloxacin	Solifenacin		
	Clarithromycin	Galantamine	Nortriptyline	Sotalol		
	Clomipramine	Gemifloxacin	Octreotide	Sunitinib		
	Clozapine	Granisetron	Ofloxacin	Tacrolimus		
	Dasatinib	Haloperidol	Ondansetron	Tamoxifen		
	Desipramine	Ibutilide	Paliperidone	Telithromycin		
	Diphenhydramine	Iloperidone	Paroxetine	Terbutaline		

References:
Facts & Comparisons, 2017 Updates, Wolters Kluwer Health.
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Austedo Prescribing Information, April 2017, Teva Pharmaceuticals.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

23. Deutetrabenazine / Overutilization ___√____ _____ _____

Alert Message: The manufacturer's recommended maximum total daily dose of Austedo (deutetrabenazine) is 48 mg (24 mg twice daily). The maximum daily dose in patients who are poor CYP2D6 metabolizers is 36 mg (18 mg twice daily). Administer total daily dosages of 12 mg or above in two divided doses.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C **(Negate)**
Deutetrabenazine		Paroxetine
		Fluoxetine
		Quinidine
		Bupropion

Max Dose: 48 mg/day

References:
Facts & Comparisons, 2017 Updates, Wolters Kluwer Health.
Clinical Pharmacology, 2017 Elsevier/Gold Standard.

24. Valbenazine / Overutilization ___√____ _____ _____

Alert Message: Ingrezza (valbenazine) may be over-utilized. The manufacturer's recommended maximum daily dose of valbenazine is 80 mg once daily.

Conflict Code: ER - Overutilization
Drugs/Diseases

Util A	Util B	Util C **(Negating)**		
Valbenazine		Hepatic Impairment	Saquinavir	Quinidine
		Nefazodone	Ritonavir	
		Clarithromycin	Indinavir	
		Telithromycin	Nelfinavir	
		Ketoconazole	Cobicistat	
		Itraconazole	Bupropion	
		Voriconazole	Fluoxetine	
		Posaconazole	Paroxetine	

Max Dose: 80 mg/day

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Ingrezza Prescribing Information, April 2017, Neurocrine Biosciences, Inc.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

25. Valbenazine / Overutilization – Hepatic Impairment ___V___ _____ _____

Alert Message: Ingrezza (valbenazine) may be over-utilized. The manufacturer's recommended maximum daily dose of valbenazine in patients with moderate to severe hepatic impairment (Child Pugh score 7 to 15) is 40 mg once daily.

Conflict Code: ER - Overutilization
Drugs/Diseases

Util A	Util B	Util C **(Include)**
Valbenazine		Hepatic Impairment

Max Dose: 40 mg/day

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Ingrezza Prescribing Information, April 2017, Neurocrine Biosciences, Inc.

26. Valbenazine / Severe Renal Impairment ___V___ _____ _____

Alert Message: Ingrezza (valbenazine) use is not recommended in patients with severe renal impairment (CrCl < 30 mL/min). Dosage adjustment is not necessary for patients with mild to moderate renal impairment (CrCl 30 to 90 mL/min).

Conflict Code: TA – Therapeutic Appropriateness
Drugs/Diseases

Util A	Util B	Util C **(Include)**
Valbenazine		CKD Stage 4, 5, & ESRD

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Ingrezza Prescribing Information, April 2017, Neurocrine Biosciences, Inc.

27. Valbenazine /CYP3A4 Inducers ___V___ _____ _____

Alert Message: Concurrent use of Ingrezza (valbenazine) with strong CYP3A4 inducers is not recommended. Valbenazine is a CYP3A4 substrate and co-administration with a strong CYP3A4 inducer may result in decreased exposure to valbenazine and its active metabolite reducing efficacy.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Valbenazine	Carbamazepine	Rifampin
	Phenytoin	Rifabutin
	Phenobarbital	Rifapentine
	Primidone	Enzalutamide

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Ingrezza Prescribing Information, April 2017, Neurocrine Biosciences, Inc.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

28. Valbenazine /MAO Inhibitors ___√___ _____ _____

Alert Message: Concurrent use of Ingrezza (valbenazine), a VMAT2 inhibitor, with a MAO inhibitor should be avoided. Co-administration of these agents may result in increased concentrations of monoamine neurotransmitters in synapses, potentially leading to increased risk of adverse reactions such as serotonin syndrome or attenuated treatment effect of valbenazine.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Valbenazine	Isocarboxazid	
	Phenelzine	
	Tranylcypromine	
	Selegiline	
	Linezolid	
	Rasagiline	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Ingrezza Prescribing Information, April 2017, Neurocrine Biosciences, Inc.

29. Valbenazine / Strong CYP3A4 Inhibitors ___√___ _____ _____

Alert Message: Concurrent use of Ingrezza (valbenazine), a CYP3A4 substrate, with a strong CYP3A4 inhibitor may result in increased exposure to valbenazine and its active metabolite. Concomitant use may put the patient at risk for valbenazine exposure-related adverse reactions. The manufacturer recommends reducing the dose of valbenazine to 40 mg once daily when valbenazine is co-administered with a strong CYP3A4 inhibitor.

Conflict Code: ER - Overutilization
Drugs/Diseases

Util A	Util B	Util C **(Include)**	
Valbenazine		Nefazodone	Saquinavir
		Clarithromycin	Ritonavir
		Telithromycin	Indinavir
		Ketoconazole	Nelfinavir
		Itraconazole	Cobicistat
		Voriconazole	Posaconazole

Max Dose: 40 mg/day

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Ingrezza Prescribing Information, April 2017, Neurocrine Biosciences, Inc.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

30. Valbenazine / Strong CYP2D6 Inhibitors ___√___ _____ _____

Alert Message: Concurrent use of Ingrezza (valbenazine), a CYP2D6 substrate, with a strong CYP2D6 inhibitor may result in increased exposure to valbenazine and its active metabolite. Concomitant use may put the patient at risk for valbenazine exposure-related adverse reactions. Consider reducing the valbenazine dose based on tolerability when valbenazine is co-administered with a strong CYP2D6 inhibitor.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Valbenazine	Bupropion	
	Paroxetine	
	Fluoxetine	
	Quinidine	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Ingrezza Prescribing Information, April 2017, Neurocrine Biosciences, Inc.

31. Valbenazine / Digoxin ___√___ _____ _____

Alert Message: Concurrent use of Ingrezza (valbenazine) with digoxin, a P-gp substrate, may result in increased digoxin levels due to valbenazine inhibition of digoxin P-gp mediated transport. Digoxin concentrations should be monitored when co-administering these agents. Dosage adjustment of digoxin may be necessary.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Valbenazine	Digoxin	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Ingrezza Prescribing Information, April 2017, Neurocrine Biosciences, Inc.

32. Valbenazine / QT Prolongation, Arrhythmias, Bradycardia ___√___ _____ _____

Alert Message: Ingrezza (valbenazine) use should be avoided in patients with congenital long QT syndrome or with arrhythmias associated with a prolonged QT interval.

Conflict Code: TA – Therapeutic Appropriateness
Drugs/Diseases

Util A	Util B	Util C
Valbenazine		Long QT Syndrome
		Arrhythmias

References:
Facts & Comparisons, 2017 Updates, Wolters Kluwer Health.
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Ingrezza Prescribing Information, April 2017, Neurocrine Biosciences, Inc.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

33. Valbenazine / Medications Causing QT Prolongation ___√___ _____ _____

Alert Message: The concurrent use of Ingrezza (valbenazine) with medications that are known to prolong QTc should be avoided. Valbenazine may cause an increase in the QT interval and use with other agents that also prolong the interval may have an additive effect.

Conflict Code: DD – Drug/Drug Interaction

Drugs/Diseases

Util A	Util B				Util C
Valbenazine	Albuterol	Disopyramide	Imipramine	Pazopanib	Thioridazine
	Alfuzosin	Dofetilide	Indapamide	Pentamidine	Tizanidine
	Amantadine	Dolasetron	Isradipine	Pimozide	Tolterodine
	Amiodarone	Doxepin	Itraconazole	Posaconazole	Trazodone
	Amitriptyline	Dronedarone	Ketoconazole	Procainamide	TMP/SMZ
	Amphetamine	Droperidol	Lapatinib	Propafenone	Trimipramine
	Arsenic Trioxide	Ephedrine	Levalbuterol	Protriptyline	Vandetanib
	Asenapine	Epinephrine	Levofloxacin	Quetiapine	Vardenafil
	Atazanavir	Erythromycin	Lithium	Quinidine	Venlafaxine
	Atomoxetine	Escitalopram	Metaproterenol	Ranolazine	Ziprasidone
	Azithromycin	Felbamate	Methadone	Risperidone	Zolmitriptan
	Chloral Hydrate	Flecainide	Moexipril/HCTZ	Ritonavir	Ezogabine
	Chloroquine	Fluconazole	Moxifloxacin	Salmeterol	Apomorphine
	Chlorpromazine	Fluoxetine	Nicardipine	Saquinavir	Telotristat
	Ciprofloxacin	Foscarnet	Nilotinib	Sertraline	
	Citalopram	Fosphenytoin	Norfloxacin	Solifenacin	
	Clarithromycin	Galantamine	Nortriptyline	Sotalol	
	Clomipramine	Gemifloxacin	Octreotide	Sunitinib	
	Clozapine	Granisetron	Ofloxacin	Tacrolimus	
	Dasatinib	Haloperidol	Ondansetron	Tamoxifen	
	Desipramine	Ibutilide	Paliperidone	Telithromycin	
	Diphenhydramine	Iloperidone	Paroxetine	Terbutaline	

References:

Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Ingrezza Prescribing Information, April 2017, Neurocrine Biosciences, Inc.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

34. Valbenazine / Pregnancy / Pregnancy Negating ___√___ _____ _____

Alert Message: The limited available data on Ingrezza (valbenazine) use in pregnant women is insufficient to inform a drug-associated risk. In animal studies no malformations were observed when valbenazine was administered to rats and rabbits during the period of organogenesis at doses up to 24 times the maximum recommended human dose. However, administration of valbenazine to pregnant rats during organogenesis through lactation produced an increase in the number of stillborn pups and postnatal pup mortalities. Advise pregnant females of potential risk to fetus.

Conflict Code: MC – Drug (Actual) Disease Warning
Drugs/Diseases

Util A	Util B	Util C (Negating)
Valbenazine	Pregnancy	Delivery
		Miscarriage
		Abortion

Gender: F
Age Range: 11 – 55 yoa

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Ingrezza Prescribing Information, April 2017, Neurocrine Biosciences, Inc.

35. Valbenazine / Lactation & Disorders of Lactation ___√___ _____ _____

Alert Message: There is no information regarding the presence of Ingrezza (valbenazine) or its active metabolites in human milk. Valbenazine and its metabolites have been detected in rat milk. Based on animal findings of increased perinatal mortality in exposed fetuses and pups, advise a woman to not breastfeed during treatment with valbenazine and for 5 days after the final dose.

Conflict Code: MC – Drug (Actual) Disease Warning
Drugs/Diseases

Util A	Util B	Util C
Valbenazine	Lactation	
	Disorder of Lactation	

Gender: Female
Age Range: 11 – 55 yoa

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Ingrezza Prescribing Information, April 2017, Neurocrine Biosciences, Inc.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

36. Safinamide / Overutilization ___V___ _____ _____

Alert Message: Xadago (safinamide) may be over-utilized. The manufacturer's recommended maximum dose of safinamide is 100 mg once daily. Daily dosages of safinamide above 100 mg have not been shown to provide additional benefit, and higher dosages increase the risk for adverse reactions. Selectivity for MAO-B inhibition decreased in a dose-related manner above the highest recommended daily dosage.

daily dosage. Conflict Code: ER - Overutilization
Drugs/Diseases

Util A	Util B	Util C **(Negate)**
Safinamide		Hepatic Impairment

Max Dose: 100 mg/day

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Xadago Prescribing Information, June 2017, US WorldMeds LLC.

37. Safinamide / Hepatic Impairment ___V___ _____ _____

Alert Message: The recommended maximum daily dose of Xadago (safinamide) in patients with moderate hepatic impairment (Child-Pugh B score 7-9) is 50 mg once daily. Safinamide use is contraindicated in patients with severe hepatic impairment (Child-Pugh C score 10-15). As a patient taking 50 mg safinamide progresses from moderate to severe hepatic impairment, discontinue safinamide.

Conflict Code: ER - Overutilization
Drugs/Diseases

Util A	Util B	Util C **(Include)**
Safinamide		Hepatic Impairment

Max Dose: 50 mg/day

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Xadago Prescribing Information, June 2017, US WorldMeds LLC.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

38. Safinamide / Severe Hepatic Impairment ___√___ _____ _____

Alert Message: Xadago (safinamide) use is contraindicated in patients with severe hepatic impairment (Child-Pugh C score 10-15). In clinical studies subjects with moderate hepatic impairment (Child-Pugh B) receiving safinamide had an approximate 80% increase in safinamide exposure.

Conflict Code: TA – Therapeutic Appropriateness
Drugs/Diseases

Util A	Util B	Util C **(Include)**
Safinamide		Severe Hepatic Impairment

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Xadago Prescribing Information, June 2017, US WorldMeds LLC.

39. Safinamide / Levodopa/Carbidopa ___√___ _____ _____

Alert Message: A review of the patient's drug history does not show a concurrent prescription for levodopa/carbidopa. Xadago (safinamide) is indicated as adjunctive treatment to levodopa/carbidopa in patients with Parkinson's disease (PD) experiencing "off" episodes. Safinamide has not been shown to be effective as monotherapy for the treatment of PD.

Conflict Code: TA – Therapeutic Appropriateness
Drugs/Diseases

Util A	Util B	Util C **(Negate)**
Safinamide		Levodopa/Carbidopa

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Xadago Prescribing Information, June 2017, US WorldMeds LLC.

40. Safinamide / MAO Inhibitors ___√___ _____ _____

Alert Message: Xadago (safinamide) is contraindicated for use with other drugs in the MAO inhibitor class or other drugs that are potent inhibitors of monoamine oxidase. Co-administration increases the risk of nonselective MAO inhibition, which may lead to hypertensive crisis. At least 14 days should elapse between discontinuation of safinamide and initiation of treatment of other MAOIs.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Safinamide	Isocarboxazid	
	Phenelzine	
	Tranylcypromine	
	Linezolid	
	Rasagiline	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Xadago Prescribing Information, June 2017, US WorldMeds LLC.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

41. Safinamide / Opioids ___√___ _____ _____

Alert Message: Concurrent use of Xadago (safinamide), a MAO-B inhibitor, with opioid drugs is contraindicated. Serious, sometimes fatal reactions have been precipitated with concomitant use of MAOIs and opioids. At least 14 days should elapse between discontinuation of safinamide and initiation of treatment with an opioid.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B		Util C
Safinamide	Meperidine	Fentanyl	
	Methadone	Dihydrocodeine	
	Morphine	Tapentadol	
	Codeine	Tramadol	
	Hydrocodone	Oxymorphone	
	Hydromorphone	Oxycodone	
	Levorphanol		

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Xadago Prescribing Information, June 2017, US WorldMeds LLC.

42. Safinamide / Dextromethorphan ___√___ _____ _____

Alert Message: The concurrent use of Xadago (safinamide), a MAO-B inhibitor, with a dextromethorphan-containing agent is contraindicated. The co-administration of dextromethorphan and MAOIs has been shown to cause episodes of psychosis or bizarre behavior.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Safinamide	Dextromethorphan	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Xadago Prescribing Information, June 2017, US WorldMeds LLC.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

43. Safinamide / Serotonergic Agents _____ ___√____ _____

Alert Message: The concurrent use of Xadago (safinamide), a MAO-B inhibitor, with a serotonergic drug is contraindicated. The co-administration of MAOIs and a serotonergic agent may result in potentially life-threatening serotonin syndrome. At least 14 days should elapse between discontinuation of safinamide and initiation of treatment with these drugs.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Safinamide	SNRIs	
	TCAs	
	Tetracyclic Antidepressants	
	Trazodone	
	Cyclobenzaprine	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Xadago Prescribing Information, June 2017, US WorldMeds LLC.

44. Safinamide / Sympathomimetic Agents ___√____ _____ _____

Alert Message: The concurrent use of Xadago (safinamide), a MAO-B inhibitor, with a sympathomimetic agent is contraindicated. Hypertensive crisis has been reported in patients taking the recommended doses of selective MAO-B inhibitors and sympathomimetic medications.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Safinamide	Methylphenidate	
	Dexmethylphenidate	
	Amphetamine	
	Dextroamphetamine	
	Methamphetamine	
	Lisdexamfetamine	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Xadago Prescribing Information, June 2017, US WorldMeds LLC.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

45. Safinamide / SSRIS ___√___ _____ _____

Alert Message: Caution should be exercised when Xadago (safinamide), a MAO-B inhibitor, is co-administered with selective serotonin re-uptake inhibitors (SSRIs). In clinical trials, serotonin syndrome was reported in a patient treated with safinamide and an SSRI. In a patient treated with concomitant safinamide and an SSRI, use the lowest effective dose of the SSRI and monitor the patient for symptoms of serotonin syndrome.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B		Util C
Safinamide	Fluoxetine	Escitalopram	
	Paroxetine	Sertraline	
	Fluvoxamine	Vortioxetine	
	Citalopram	Vilazodone	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Xadago Prescribing Information, June 2017, US WorldMeds LLC.

46. Safinamide / BCRP Substrates ___√___ _____ _____

Alert Message: Concurrent use of Xadago (safinamide) with a drug that is a BCRP substrate may result in increased plasma concentrations of the BCRP substrate. Safinamide and its major metabolite inhibit BCRP transport. If co-administration with safinamide and the BCRP substrate is warranted monitor the patient for increased pharmacologic or adverse effect of the BCRP substrate.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Safinamide	Methotrexate	
	Imatinib	
	Irinotecan	
	Lapatinib	
	Rosuvastatin	
	Sulfasalazine	
	Topotecan	
	Dantrolene	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Xadago Prescribing Information, June 2017, US WorldMeds LLC.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

47. Safinamide / Dopamine Antagonists ___√___ _____ _____

Alert Message: Concomitant use of Xadago (safinamide) with a dopamine antagonist may decrease the effectiveness of safinamide and exacerbate the symptoms of Parkinson's disease.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Safinamide	Antipsychotics	
	Metoclopramide	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Xadago Prescribing Information, June 2017, US WorldMeds LLC.

48. Safinamide / Nonadherence ___√___ _____ _____

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

Conflict Code: LR - Nonadherence
Drugs/Diseases

Util A	Util B	Util C
Safinamide		

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Osterberg L, Blaschke T. Adherence to Medication. N Engl J Med 2005; 353:487- 497.
Xadago Prescribing Information, June 2017, US WorldMeds LLC.
Richy FF, Pietri G, Morna KA et al. Compliance with Pharmacotherapy and Direct Healthcare Costs in Patients with Parkinson's Disease: A Retrospective Claims Database Analysis. Appl Health Ecom Health Policy (2013) 11:395-406.
Fleisher JE, Stern MB. Medication Non-Adherence in Parkinson's Disease. Curr Neuro Neurosci Rep. 2013 October;13(10).

49. Voriconazole / Ergot Alkaloids ___√___ _____ _____

Alert Message: Concurrent use of Vfend (voriconazole) with ergot alkaloids is contraindicated due to the risk of ergotism. Voriconazole is a strong CYP3A4 inhibitor and co-administration with an ergot alkaloid which is a CYP3A4 substrate can result in elevated substrate concentrations.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Voriconazole	Ergotamine	
	Dihydroergotamine	
	Methylergonovine	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Facts & Comparisons, 2017 Wolters Kluwer Health.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

50. Voriconazole / Vinca Alkaloids _____ _____ _____

Alert Message: Concurrent use of Vfend (voriconazole) with vinca alkaloids should be avoided due to the risk if increased vinca alkaloid plasma concentrations which may lead to vinca alkaloid-related neurotoxicity. Voriconazole is a strong CYP3A4 inhibitor and co-administration with a vinca alkaloid which is a CYP3A4 substrate can result in elevated substrate concentrations.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Voriconazole	Vincristine	
	Vinblastine	
	Vinorelbine	

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Facts & Comparisons, 2017 Wolters Kluwer Health.

51. Voriconazole / Atazanavir / Ritonavir ___√____ _____ _____

Alert Message: The use of Vfend (voriconazole) in patients receiving atazanavir/rtv is not recommended unless an assessment of the benefit/risk to the patient justified the use of voriconazole. If concomitant therapy cannot be avoided patients should be carefully monitored for voriconazole associated adverse reactions and loss of either voriconazole or atazanavir efficacy. Co-administration of voriconazole with atazanavir (without ritonavir) may affect atazanavir concentrations; however, no data are available.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C **(Include)**
Voriconazole	Atazanavir	Ritonavir

References:
Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Facts & Comparisons, 2017 Wolters Kluwer Health.

Criteria Recommendations	*Accepted*	*Approved As Amended*	*Rejected*

52. Armonair Respiclick / Nonadherence ___√___ _____ _____

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

Conflict Code: LR - Nonadherence
Drugs/Diseases

Util A	Util B	Util C
Fluticasone Inhalation Powder		

References:

Iuga AO, McGuire MJ. Adherence and Health Care Costs. Risk Manag Healthc Policy. 2014 Feb 20;7:35-44.
Osterberg L, Blaschke T. Adherence to medication. N Engl J Med 2005;353:487-97.
Tan H, Sarawate C, Singer J et al., Impact of Asthma Controller Medications on Clinical, Economic, and Patient-Reported Outcomes. Mayo Clinic Proc. August 2009;84(8):675-684.
LI JT, et al. Attaining Optimal Asthma Control: A Practice Parameter. J Allerg Clin Immunol. 2005;116"S3-11.
Bender BG, Overcoming Barriers to Nonadherence in Asthma Treatment. J Allerg Clin Immuno. June 2002;109(6):S554-559.

53. Rivaroxaban / SSRIs & SNRIs ___√___ _____ _____

Alert Message: Concomitant use of Xarelto (rivaroxaban) with SSRIs or SNRIs may enhance the anticoagulant effect of rivaroxaban and increases the risk of bleeding. SSRIs and SNRIs can inhibit serotonin uptake by platelets causing platelet dysfunction and risk of bleeding. Promptly evaluate any signs or symptoms of blood loss if the patient is treated concurrently with these agents.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Diseases

Util A	Util B	Util C
Rivaroxaban	Fluoxetine	Venlafaxine
	Fluvoxamine	Desvenlafaxine
	Paroxetine	Milnacipran
	Citalopram	Levomilnacipran
	Escitalopram	Duloxetine
	Sertraline	
	Vilazodone	
	Vortioxetine	

References:

Clinical Pharmacology, 2017 Elsevier/Gold Standard.
Facts & Comparisons, 2017, Wolters Kluwer Health.
Xarelto Prescribing Information, Aug. 2016, Janssen Pharmaceuticals.

Stephanie McGee Azar, Commissioner — (X) Approve ( ) Deny — 8-27-18 Date

Robert Moon, M.D., Deputy Commissioner and Medical Director — (X) Approve ( ) Deny — 8/23/18 Date

Kathy Hall, Deputy Commissioner — (X) Approve ( ) Deny — 8/23/18 Date