DUR Board Meeting
March 2, 2009
Heritage Center

1pm

North Dakota Medicaid
DUR Board Meeting
Agenda
Heritage Center
March 2, 2009
1pm

1. Administrative items
    - Travel vouchers
    - Board members sign in

2. Old business
    - Review and approval of minutes of 12/01/08 meeting — Chairman
    - Budget update — Brendan
    - Implementation of tablet splitting — Brendan
    - Yearly PA review — HID
        - Antihistamines
        - PPIs
        - COX-II/NSAIDs
        - Revatio
        - Actoplus met
        - Azasite/Quixin

3. New business
    - Legislative update — Brendan
    - Review of Strattera and stimulants in combination — HID
    - Review of Aczone — HID
    - Criteria recommendations — Brendan
    - Upcoming meeting date/agenda — Chairman
    - Adjourn to Executive Session to discuss patient profiles — Chairman

4. Adjourn — Chairman

Please remember to turn all cellular phones and pagers to silent mode during the meeting.

Drug Utilization Review (DUR) Meeting Minutes
December 1, 2008

Members Present: Patricia Churchill, Norman Byers, Carrie Sorenson, Greg Pfister, Steve Irsfeld, Kim Krohn, Jeffrey Hostetter, John Savageau, Scott Setzepfandt, Leeann Ness, Carlotta McCleary and Todd Twogood.
Members Absent: Cheryl Huber
Medicaid Pharmacy Department: Brendan Joyce, Gary Betting
HID Staff Present: Candace Rieth

Chair, C. Sorenson called the meeting to order at 1:05pm. C. Sorenson introduced the new DUR Board member, Steve Irsfeld. Steve will replace Bob Treitline as a pharmacist member of the Board. Chair, C. Sorenson asked for a motion to approve the minutes from the September meeting. N. Byers moved that the minutes be approved and J. Hostetter seconded the motion. Chair, C. Sorenson called for a voice vote to approve the minutes. The motion passed.

Budget Update
B. Joyce gave the budget update. In state fiscal year 2006-2007, the net drug spend was 20.2 million dollars. In 2007-2008 the net drug spend was 19.3 million dollars. This was a decrease of approximately 4.5%. Prior to Part-D, rebate collections were approximately 20-24% of drug expenditures. After Part-D, rebate collections are approximately 30-36%. Both the trend of the drug spends and the trend of rebates is consistent with other states.

Second Review of Triptans
At the September meeting, N. Byers made a motion to make Imitrex first line for North Dakota Medicaid recipients. J. Kelloway, representing GSK, spoke on behalf of Treximet. C. Knutson, a provider from Fargo, spoke regarding the treatment of migraines. J. Hostetter made a motion to amend the original motion to include two points. Once a patient obtains a prior authorization for a triptan, all triptans in the class will be allowed for that patient without an additional prior authorization and patients will be grandfathered for life on current therapy. Chair, C. Sorenson called for a voice vote on the amendment with no audible dissent. Chair, C. Sorenson called for a voice vote to approve the original motion. The motion passed with one audible dissent.

Update on Smoking Cessation Program
Michelle Walker spoke on behalf of the North Dakota Department of Health. Michelle updated the Board on the smoking cessation program. Once a patient enrolls with the Quit Line, a recommendation for treatment will be sent to the patient. Smoking cessation medications will be allowed once a prior authorization has been requested. The process is very close to implementation.

Review of Vusion
At the September DUR meeting, T. Twogood made a motion to prior authorize Vusion. This will be the second review of this topic. There was no public comment. Chair, C. Sorenson called for a voice vote. The motion passed with no audible dissent.

Review of Statins
B. Joyce reviewed statin utilization with the Board. R. Oatfield, a provider from Bismarck, spoke regarding treatment with statins. After much discussion, the review of statins was tabled.

Yearly PA Review
The Board reviews products annually that have previously been placed on prior authorization. This allows the Board a chance to update the prior authorization forms and criteria. Solodyn, Oracea, Oxycontin, Short Acting Beta Agonists, Zanaflex capsules and Ketek were reviewed. No changes were made to the forms and criteria for these agents.

Criteria Recommendations
The recommended RDUR criteria enclosed in the packet were developed from product information provided by the manufacturers and usually are consistent with new indications, new drugs added, new warnings, etc. These proposed criteria will be added to the current set of criteria, and will be used in future DUR cycles. P. Churchill moved to approve the new criteria and G. Pfister seconded the motion. Chair, C. Sorenson called for a voice vote. The motion passed.

The next DUR board meeting will be held March 2, 2009. J. Hostetter made a motion to adjourn the meeting and J. Savageau seconded. Chair C. Sorenson adjourned the meeting at 3:25 pm.

Tablet Splitting Initiative

In March 2007, the DUR Board voted to implement a mandatory tablet splitting program that would be phased in slowly with the Board updated on a regular basis. Tablet splitting will be implemented with quantity limits on Lexapro and Lipitor.

Potential Cost Savings-Tablet Splitting
08/01/2008 – 10/31/2008

Name of Drug	Number of Rxs	Avg Cost/Rx	Total Reim	Potential Savings
Lexapro 5mg	4	$82.30	$ 335.12	
Lexapro 10mg	4	$41.15	$ 164.60	$ 170.52
Lexapro 10mg	498	$ 82.30	$40,984.58	
Lexapro 20mg (1/2 tab)	498	$ 43.68	$21,752.64	$19,231.04
Lipitor 10mg	332	$ 76.36	$25,351.03	
Lipitor 20mg (1/2 tab)	332	$ 54.06	$17,946.26	$ 7,404.77
Lipitor 20mg	234	$ 108.11	$28,729.02	
Lipitor 40mg (1/2 tab)	234	$ 58.13	$13,602.42	$15,126.60

Annualized Potential Cost Savings

Lexapro	$77,606.24
Lipitor	$90,125.48
Total	$167,731.72

HEALTH INFORMATION DESIGNS

ACTO*plus* met Prior Authorization

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

ND Medicaid requires that patients receive Actos and Metformin separately.
Note:

- ***Actos does not require PA***
- ***Metformin does not require PA***
- ***Patients must fail therapy on Actos and Metformin separately before a PA may be granted***

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ **ACTO*plus* met**	**Diagnosis for this request:**		
Qualifications for coverage:			
□ Failed both drugs separately	Start Date: End Date:	Dose: Frequency:	
Physician Signature		Date	

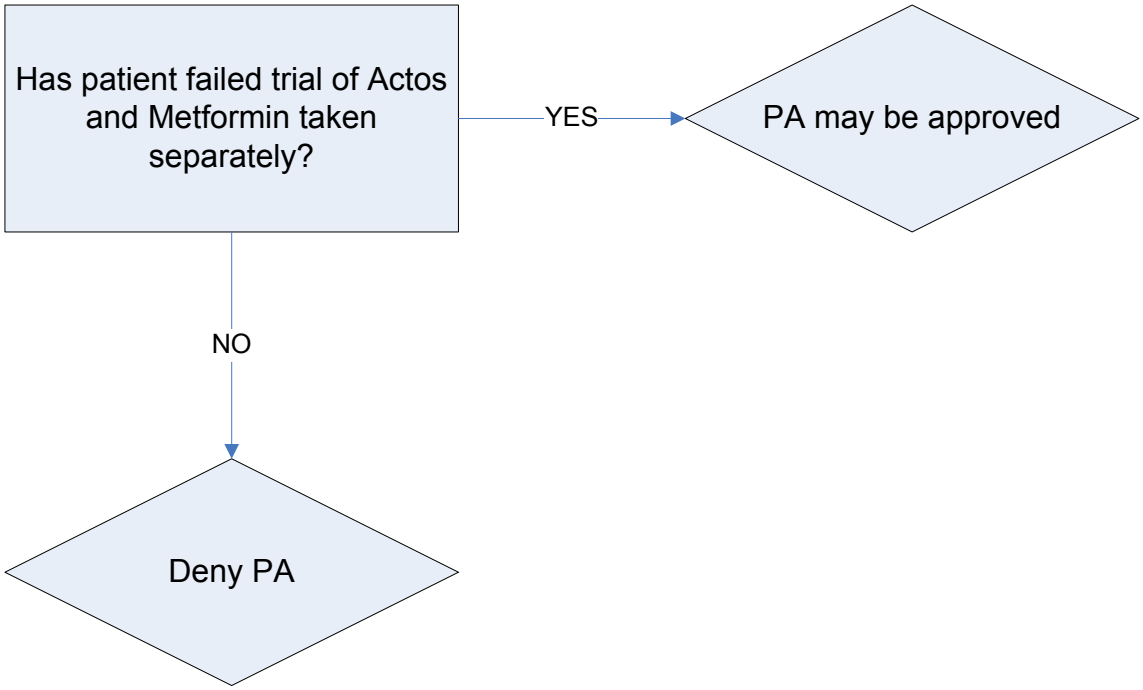
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
PHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
ACTO*plus met* Authorization Algorithm



HEALTH INFORMATION DESIGNS

Antihistamine PA Form

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

ND Medicaid requires that patients receiving antihistamines must use loratadine (Claritin® generic) and cetirizine (Zyrtec® generic) as step therapy.

***Note:**

- **Loratadine OTC and cetirizine OTC (or prescription generic) may be prescribed WITHOUT prior authorization. Loratadine OTC and cetirizine OTC are covered by Medicaid when prescribed by a physician.**
- **Patients must use loratadine or cetirizine for a minimum of 14 days for the trial to be considered a failure. Patient preference does not constitute a failure. Patients must use fexofenadine as step 2 after loratadine or cetirizine failure.**
- **Net cost to Medicaid: Loratadine = cetirizine << Allegra (generic) << Clarinex = Xyzal**

Part I: TO BE COMPLETED BY PHYSICIAN

RECIPIENT NAME:	RECIPIENT MEDICAID ID NUMBER:
Recipient Date of birth: / /	
PHYSICIAN NAME:	PHYSICIAN MEDICAID ID NUMBER:
Address:	Phone: ( )
City:	FAX: ( )
State: Zip:	

REQUESTED DRUG: □ Allegra (generic) □ Clarinex □ Xyzal	**Requested Dosage:** (must be completed) **Diagnosis for this request:**

Qualifications for coverage:

❑ Failed loratadine or cetirizine	Start Date: End Date:	Dose: Frequency:
❑ Failed Allegra (generic) Step 2	Start Date: End Date:	Dose: Frequency:

□ Adverse reaction (attach FDA Medwatch form) to loratadine and cetirizine.

□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*

Physician Signature: Date:

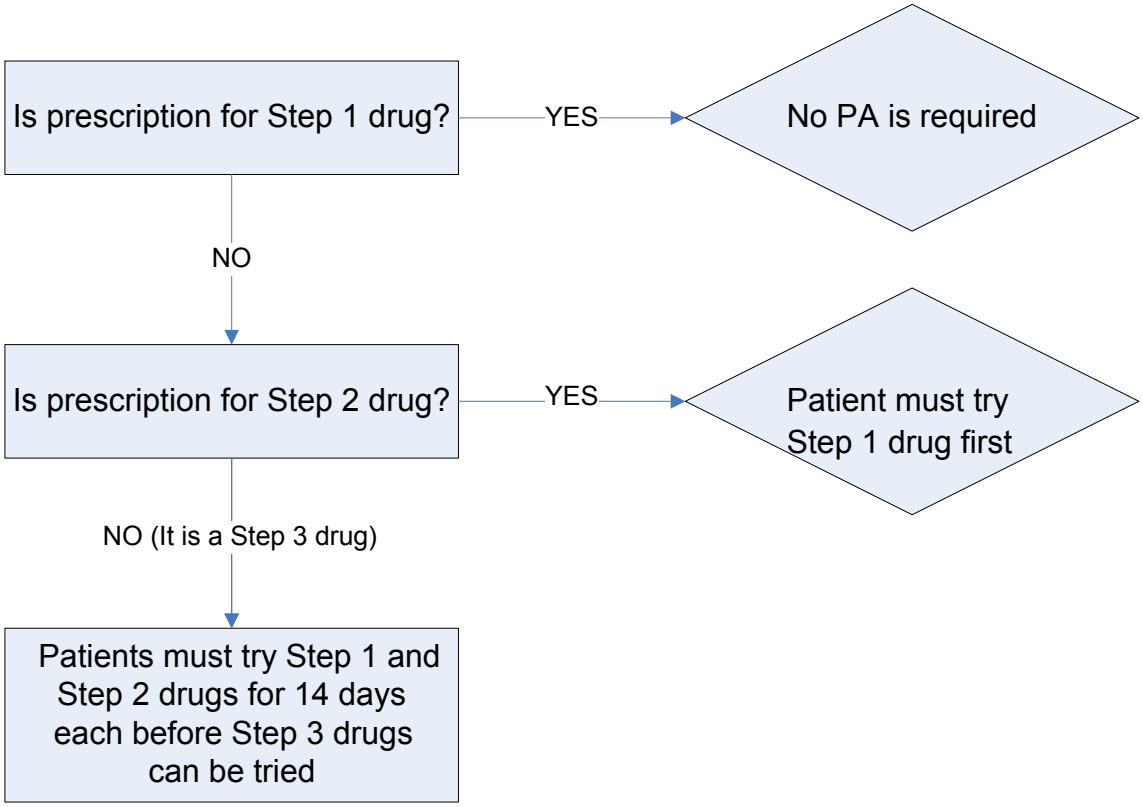
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:	ND MEDICAID PROVIDER NUMBER:
Phone:	FAX:
Drug:	NDC#:

Part III: FOR OFFICIAL USE ONLY

Date: / /	Initials: _____
Approved - Effective dates of PA: From: / /	To: / /
Denied: (Reasons)	

North Dakota Department of Human Services
Antihistamine Authorization Criteria Algorithm



Please Note:

Step 1 drug is defined as Loratadine OTC or Cetirizine
Step 2 drug is defined as Allegra (generic)
Step 3 drug is defined as Clarinex or Xyzal-must try Step 1 and Step 2 drugs before trying Step 3.

Net cost to Medicaid: Loratadine = cetirizine << Allegra (generic) << Clarinex = Xyzal

NORTH DAKOTA MEDICAID
Percentage Market Share Within Sub-Classes
Antihistamine

	FEB 04	OCT 08
All Antihistamine(No Subclass)		
ALLEGRA	25.95	0.00
ALLEGRA-D	0.00	0.00
ALLEGRA-D 12 HOUR	8.65	0.00
ALLEGRA-D 24 HOUR	0.00	0.00
CETIRIZINE HCL	0.00	29.79
CLARINEX	6.51	0.42
CLARINEX-D 24 HOUR	0.00	0.00
CLARITIN	0.84	0.63
CLARITIN-D 12 HOUR	0.37	0.00
CLARITIN-D 24 HOUR	0.09	0.00
FEXOFENADINE HCL	0.00	8.96
LORATADINE	9.58	57.29
LORATADINE D	0.00	0.00
LORATADINE-D	0.00	0.00
XYZAL	0.00	0.63
ZYRTEC	42.42	2.29
ZYRTEC-D	5.58	0.00

HEALTH INFORMATION DESIGNS

Prior Authorization Vendor for ND Medicaid

Ophthalmic Anti-infective PA Form

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Note: ND Medicaid will not pay for Azasite or Quixin without documented failure of a first line antibiotic ophthalmic agent.

- First line agents include: sulfacetamide (Bleph10, etc.), erythromycin, bacitracin-polymyxin B (Polysporin), polymyxin B-neomycin-gramicidin (Neosporin), trimethoprim-polymyxin B (Polytrim) and gentamicin (Garamycin, etc.).

Part I: TO BE COMPLETED BY PHYSICIAN

RECIPIENT NAME:	RECIPIENT MEDICAID ID NUMBER:
Recipient Date of birth:	
PHYSICIAN NAME:	PHYSICIAN MEDICAID ID NUMBER:
Address:	Phone:
City:	FAX:
State: Zip:	

REQUESTED DRUG:	**Indication:**
☐ Azasite ☐ Quixin	☐ Deep penetrating wound ☐ Pre/Post Cataract Surgery ☐ Corneal ulcer
Physician Signature:	Date:

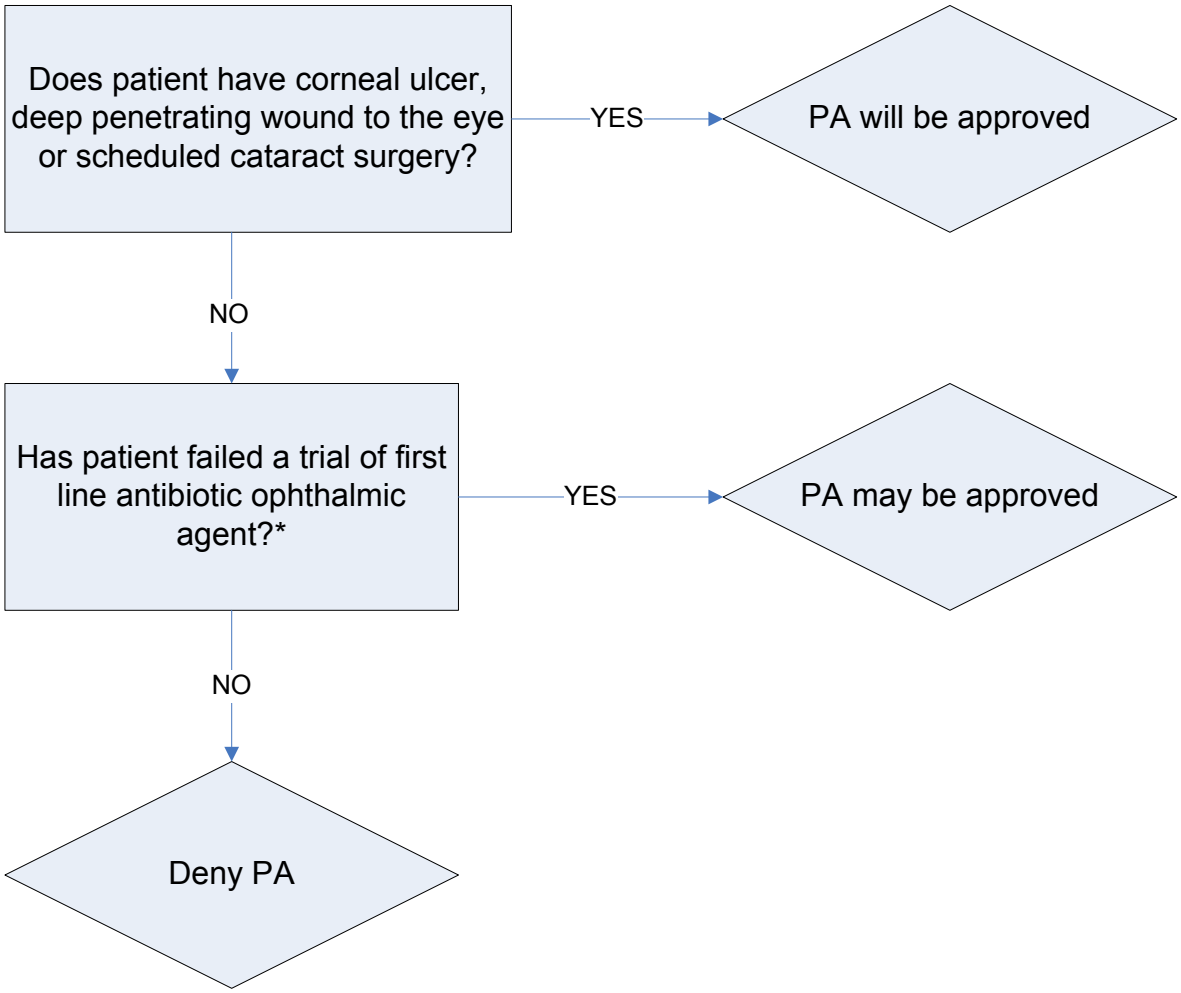
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:	ND MEDICAID PROVIDER NUMBER:
Phone:	FAX:
Drug:	NDC#:

Part III: FOR OFFICIAL USE ONLY

Date: / /	Initials: _____
Approved - Effective dates of PA: From: / /	To: / /
Denied: (Reasons)	

North Dakota Department of Human Services
Ophthalmic Anti-infective Authorization Algorithm



*First line agents include: sulfacetamide (Bleph 10, etc.), erythromycin, bacitracin-polymyxin B (Polysporin), polymyxin B-neomycin-gramicidin (Neosporin), trimethoprim-polymyxin B (Polytrim), gentamicin (Garamycin, etc.), ofloxacin (Ocuflox), and ciprofloxacin (Ciloxan).

NORTH DAKOTA MEDICAID
Percentage Market Share Within Sub-Classes
Ophthalmic Agents

	FEB 04	OCT 06	OCT 08
All Ophthalmic Agents(No Subclass)			
AK-CHLOR	0.00	0.00	0.00
AK-POLY-BAC	0.00	0.00	0.00
AK-SPORE	0.00	0.00	0.00
AK-SULF	0.00	0.00	0.00
AK-TRACIN	0.00	0.00	0.00
AKTOB	0.23	0.69	0.00
ALBA-3	0.00	0.00	0.00
AZASITE	0.00	0.00	0.00
BACITRACIN	1.62	0.34	0.60
BACITRACIN-POLYMYXIN	2.54	0.34	0.00
BACITRACIN/POLYMYXIN	0.00	0.00	0.00
BACITRACIN/POLYMYXIN B	0.00	0.00	0.00
CETAMIDE	0.00	0.00	0.00
CHLORAMPHENICOL	0.00	0.00	0.00
CHLOROMYCETIN	0.00	0.00	0.00
CILOXAN	20.09	1.72	0.90
CIPROFLOXACIN HCL	0.00	4.83	12.35
ERYTHROMYCIN	13.63	7.93	10.54
GARAMYCIN	0.00	0.00	0.00
GENTAK	5.31	6.90	1.51
GENTAMICIN SULFATE	23.79	26.55	33.43
GENTASOL	0.00	0.00	0.00
INFA-3	0.00	0.00	0.00
INFA-CHLOR	0.00	0.00	0.00
INFA-GEN	0.00	0.00	0.00
INFA-SULF	0.00	0.00	0.00
NEOCIDIN	0.00	0.00	0.00
NEOCIN-PG	0.00	0.00	0.00
NEOMYCIN/BACITRACIN/POLYMYXIN	0.00	0.00	0.00
NEOMYCIN/POLYMYXIN/GRAMICIDIN	0.00	0.00	0.00
NEOPOLYGRAM	0.00	0.00	0.00
NEOPTIC	0.00	0.00	0.00
NEOSPORIN	0.00	0.00	0.00
OCUFLOX	3.23	0.00	0.00
OFLOXACIN	0.00	0.69	1.51
P.N.	0.00	0.00	0.00
POLYCIDIN	0.00	0.00	0.00
POLYMYXIN B SUL/TRIMETHOPRIM	0.00	0.00	0.00
POLYTRACIN	0.00	0.00	0.00
QUIXIN	0.46	0.34	0.00
SODIUM SULAMYD	0.00	0.00	0.00
SPECTRO-BACITRACIN	0.00	0.00	0.00
SPECTRO-CHLOR	0.00	0.00	0.00
SPECTRO-GENTA	0.00	0.00	0.00
SPECTRO-POLYTRACIN	0.00	0.00	0.00
SPECTRO-SPORIN	0.00	0.00	0.00

SPECTRO-SULF	0.00	0.00	0.00
SULFACETAMIDE SODIUM	9.01	10.69	7.23
SULFAMIDE	0.00	0.00	0.00
TOBRAMYCIN SULFATE	7.62	6.21	11.45
TOBREX	0.92	1.03	0.30
TOMYCINE	0.00	0.00	0.00
TRI-BIOTIC	0.00	0.00	0.00
TRIBIOTIC	0.00	0.00	0.00
TRIPLE ANTIBIOTIC	0.00	0.00	0.00
VIGAMOX	7.85	30.00	17.77
ZYMAR	3.70	1.72	2.41

HEALTH INFORMATION DESIGNS

Prior Authorization Vendor for ND Medicaid

BRAND NAME NSAID/COX-II PA FORM

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients using brand name NSAIDs or COX-II drugs must use a generic NSAID as first line.

***Note: The PA will be approved if one of the following criteria is met:**

- **Failed two trials of prescribed NSAID**
- **Recipient is on warfarin or corticosteroid therapy**
- **Recipient has history of gastric or duodenal ulcer or has comorbidities of GI bleed, perforation or obstruction**
- **Recipient has history of endoscopically documented NSAID induced gastritis with GI bleed**

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name		Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name				
Physician Medicaid Provider Number		Telephone Number	Fax Number	
Address		City	State	Zip Code
Requested Drug: □ Celebrex □ Other _____	**Requested Dosage:**	**Diagnosis for this request:** □ Warfarin/Corticosteroid therapy □ Gastric or duodenal ulcer □ GI Bleed, perforation or obstruction □ Endoscopically documented NSAID gastritis with GI Bleed		
Qualifications for coverage:				
□ Failed NSAID therapy	Start Date	End Date	Dose	Frequency
□ Failed NSAID therapy	Start Date	End Date	Dose	Frequency
□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*				
Physician Signature			Date	

Part II: TO BE COMPLETED BY PHARMACY

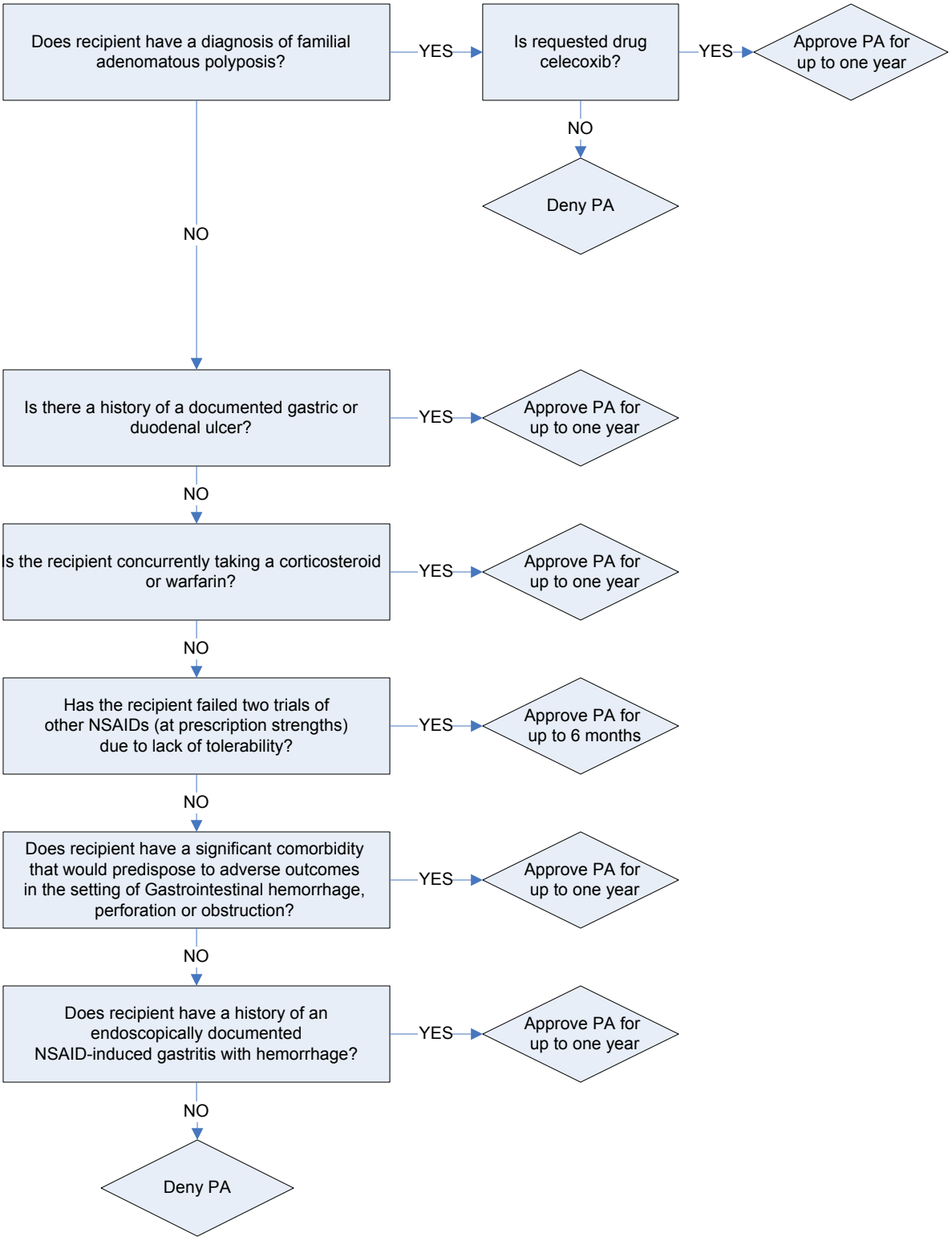
PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services

Name Brand NSAID/COX-II Authorization Algorithm



NORTH DAKOTA MEDICAID
Percentage Market Share Within Sub-Classes
NSAIDS/COXII

	FEB 04	FEB 05	OCT 08
All NSAIDS/COXII (No Subclass)			
ARTHROTEC 50	0.68	0.84	0.10
ARTHROTEC 75	0.47	0.74	0.10
BEXTRA	13.95	15.05	0.00
CELEBREX	30.08	28.61	4.45
CLINORIL	0.00	0.00	0.00
DICLOFENAC POTASSIUM	0.64	1.29	4.06
DICLOFENAC SODIUM	0.77	1.88	3.66
DIFLUNISAL	0.04	0.20	0.00
DOLOBID	0.00	0.00	0.00
EC-NAPROSYN	0.00	0.00	0.00
ETODOLAC	0.60	1.39	1.88
FELDENE	0.00	0.00	0.00
FENOPROFEN CALCIUM	0.00	0.00	0.00
FLECTOR	0.00	0.00	0.00
FLURBIPROFEN	0.09	0.74	0.20
FLURBIPROFEN SODIUM	0.00	0.00	0.00
HYDROCODONE BIT-IBUPROFEN	3.00	3.42	6.23
IBUPROFEN	16.99	23.61	38.48
IBUPROFEN CHILD	0.00	0.00	0.00
IBUPROFEN IB	0.00	0.00	0.00
IBUPROFEN M	0.00	0.00	0.00
IBUPROFEN PMR	0.00	0.00	0.00
INDOCIN	0.00	0.00	0.00
INDOCIN SR	0.00	0.00	0.00
INDOMETHACIN	1.41	1.68	2.57
KETOPROFEN	1.67	1.83	3.96
KETOROLAC TROMETHAMINE	2.05	1.73	2.27
LODINE	0.00	0.00	0.00
LODINE XL	0.00	0.00	0.00
MECLOFENAMATE SODIUM	0.04	0.20	0.00
MECLOMEN	0.00	0.00	0.00
MELOXICAM	0.00	0.00	6.13
MOBIC	0.86	3.22	0.00
MOTRIN	0.81	0.45	1.58
MOTRIN IB	0.00	0.00	0.00
MOTRIN MIGRAINE	0.00	0.00	0.00
NABUMETONE	1.63	3.02	2.37
NAPRELAN	0.00	0.00	0.00
NAPROSYN	0.17	0.10	0.00
NAPROXEN	5.13	6.53	15.83
NAPROXEN SODIUM	0.94	1.04	1.38
OXAPROZIN	0.39	0.50	1.38
PIROXICAM	0.26	0.84	2.67
PONSTEL	0.04	0.10	0.10
RELAFEN	0.04	0.00	0.00
SOLARAZE	0.00	0.00	0.00

SULINDAC	0.56	0.54	0.49
TOLECTIN 200	0.00	0.00	0.00
TOLECTIN 600	0.00	0.00	0.00
TOLECTIN DS	0.00	0.00	0.00
TOLMETIN SODIUM	0.17	0.05	0.00
TORADOL	0.00	0.00	0.00
VICOPROFEN	0.34	0.10	0.00
VIOXX	15.92	0.00	0.00
VOLTAREN	0.26	0.30	0.10
VOLTAREN-XR	0.00	0.00	0.00

HEALTH INFORMATION DESIGNS

Prior Authorization Vendor for ND Medicaid

Proton Pump Inhibitor PA Form

Clear Fields

Fax Completed Form to:
866-254-0761
For questions regarding this prior authorization, call:
866-773-0695

North Dakota Medicaid requires that patients receiving proton pump inhibitors must use **Prilosec OTC*** as first line.

*Note:

- **Prilosec OTC may be prescribed WITHOUT prior authorization. Prilosec OTC is covered by Medicaid when prescribed by a physician.**
- **Prior Authorization is NOT required for patients < 13 years of age.**
- **Patients must use Prilosec OTC for a minimum of 14 days for the trial to be considered a failure. Patient preference does not constitute a failure.**
- **Net cost to Medicaid: Prilosec OTC <<< Protonix < Prevacid < Omeprazole << Aciphex < Prilosec RX << Nexium.**

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug: ☐ Protonix ☐ Aciphex ☐ Prevacid ☐ Nexium ☐ Prilosec	**Requested Dosage** (must be completed) **Diagnosis for this request**		

Qualifications for coverage:

☐ Failed omeprazole OTC	Start Date	End Date	Dose	Frequency
☐ Adverse Reaction to omeprazole OTC (attach FDA Medwatch form) or Contraindicated: (provide description below)				
☐ Pregnancy - Due Date:				
☐ Inability to take or tolerate oral tablets (must check a box below) ☐ Tube Fed ☐ Requires soft food or liquid administration ☐ Other (provide description)				
☐ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*				
Physician Signature			Date	

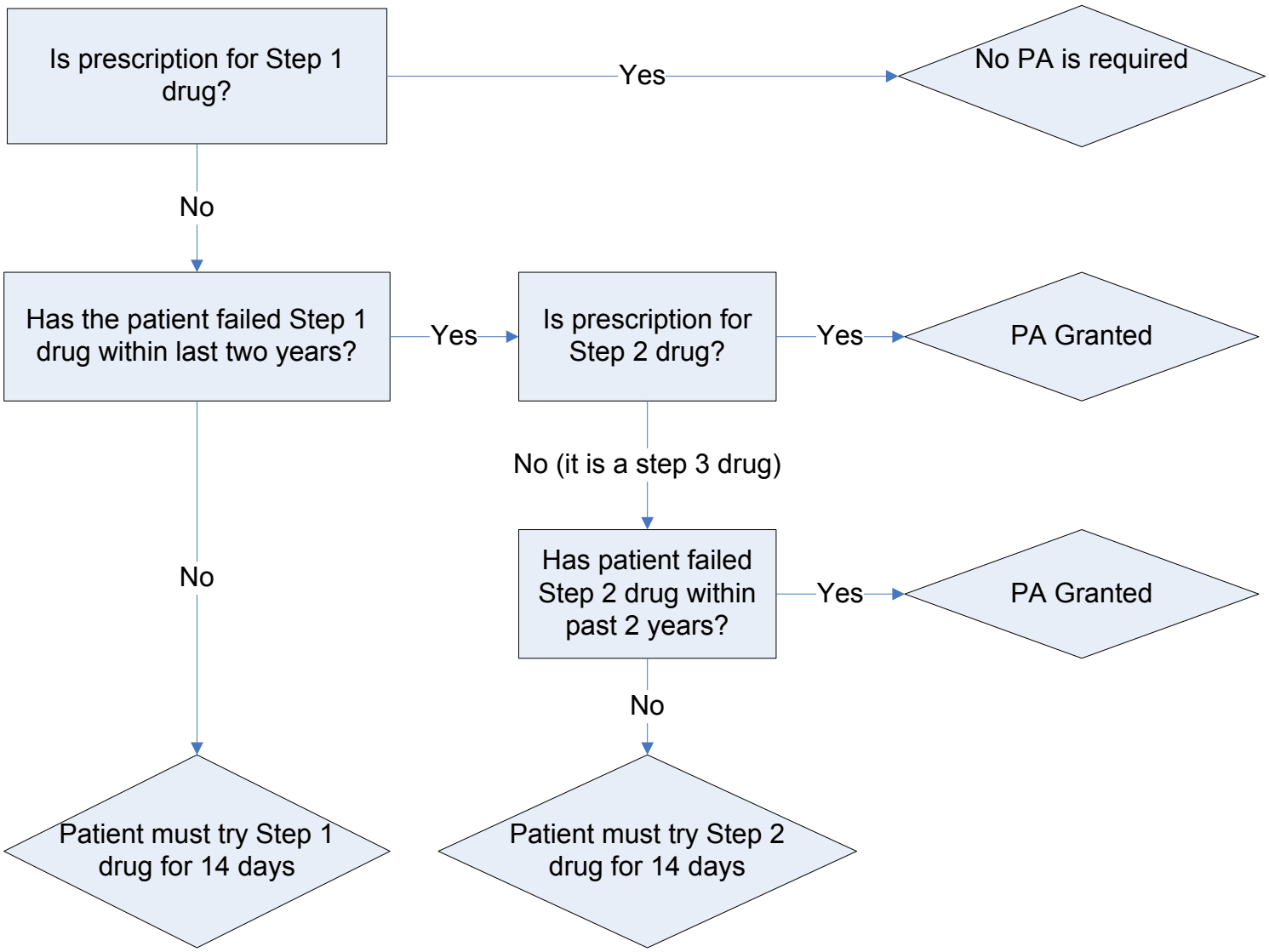
Part II: TO BE COMPLETED BY PHARMACY - *COMPLETE PART II AND FAX TO NUMBER AT TOP OF PAGE*

Pharmacy Name			ND Medicaid Provider Number
Telephone Number	Fax Number	Drug	NDC #

Part III: FOR STATE USE ONLY

Date Received	Initials
Approved - Effective dates of PA From: / / To: / /	Approved By
Denied (Reasons)	

North Dakota Department of Human Services
Proton Pump Inhibitor Authorization Criteria Algorithm



<u>Please Note:</u>

Step 1 drug is defined as Prilosec OTC

Step 2 drug is defined as Protonix, Prevacid (which is 3 times more expensive)

Step 3 drug is defined as Nexium, Aciphex (which is 5-8 times more expensive)

NORTH DAKOTA MEDICAID
Percentage Market Share Within Sub-Classes
Proton Pump Inhibitors

	FEB 04	OCT 08
All Proton Pump Inhibitors(No Subclass)		
ACIPHEX	4.93	1.01
NEXIUM	12.23	2.52
NEXIUM I.V.	0.00	0.00
OMEPRAZOLE	8.29	58.87
PANTOPRAZOLE SODIUM	0.00	6.45
PREVACID	23.88	15.32
PREVACID IV	0.00	0.00
PRILOSEC	2.06	0.10
PRILOSEC OTC	20.88	14.72
PROTONIX	27.73	1.01
PROTONIX IV	0.00	0.00

HEALTH INFORMATION DESIGNS

Revatio Prior Authorization Form

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

ND Medicaid requires that patients receiving Revatio must have a diagnosis of Pulmonary Arterial Hypertension based on WHO (Group I) Classification for Pulmonary Hypertension.

**Note:*

- ***Patients taking Bosentan, Nitrates or Viagra/Levitra/Cialis will not receive a PA***

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ **Revatio**	**Diagnosis for this request:**		
Qualifications for coverage:			
□ Indication for the treatment of Pulmonary Arterial Hypertension (WHO Group I Classification)			
Physician Signature		Date	

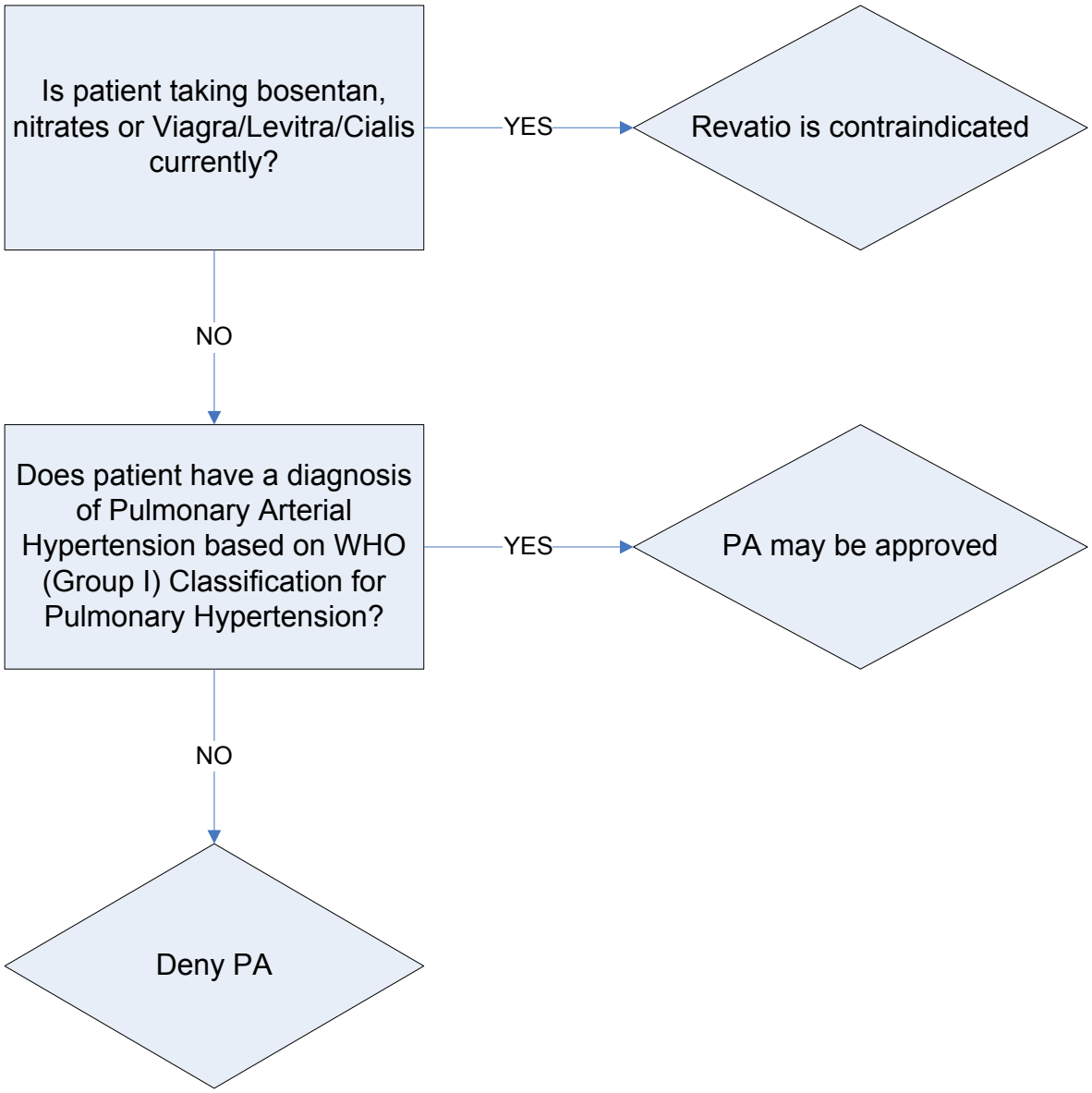
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
PHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Revatio Authorization Algorithm



North Dakota Department of Human Services
Pharmacotherapy Review
Strattera®
March 2, 2009

I. Overview

Most medications for ADHD are CNS stimulants, which are thought to work by blocking reuptake of norepinephrine and dopamine in the presynaptic neurons and increasing release of these neurotransmitters into the extraneural space. There is one non-stimulant medication for ADHD, atomoxetine (Strattera®), which is thought to work by a different mechanism. Atomoxetine is classified as a norepinephrine reuptake inhibitor and works by selectively inhibiting presynaptic norepinephrine transporters.[1]

ADHD is a pervasive childhood problem, affecting approximately 3 to 5% of school age children. This amounts to about 2 million children. To put that in perspective, in a class of 25 to 30 children, it is likely that at least one child will be affected by ADHD.[2, 3] Children with ADHD are usually diagnosed between the ages of 6 to 12, as it is hard to diagnose much earlier than that. A diagnosis of ADHD is subjective in nature, with the provider looking for symptoms of inattention, hyperactivity, and impulsivity; symptoms that are frequent and severe enough to interfere with the child's and often, the family's ability to lead a normal life. These children, left undiagnosed or untreated, are at higher risk of self-injury, depression, low self-esteem, and a host of other societal disorders.[3-5]

Pharmacotherapy, along with behavior therapy and counseling, can certainly help those patients diagnosed with ADHD lead a normal and productive life.[3] For many years, CNS stimulants have been considered first-line therapy for the treatment of ADHD. With the approval of atomoxetine in late 2002, patients now have another treatment option.[6]

II. Current Treatment Guidelines for ADHD

In October 2006, the American Academy of Child and Adolescent Psychiatry (AACAP) issued a new, multi-tiered treatment plan for the assessment and treatment of children and adolescents with Attention-Deficit/Hyperactivity Disorder: [7]

1) Develop a treatment plan that involves psychopharmacological and/or behavioral therapy and involves parents, teachers and caregivers. It is also important to recognize that ADHD is a chronic condition.
2) Medication selection:
    a. The following medications are approved by the U.S. Food and Drug Administration (FDA) for the treatment of ADHD: dextroamphetamine (DEX), D- and D, L-methylphenidate (MPH), mixed salts amphetamine, and atomoxetine.
    b. The American Academy of Pediatrics (2001) and the Texas Children's Medication Project (Pliska et al., 2006a) have recommended stimulants as the first line treatment for ADHD, particularly when no comorbidities are present.
    c. CNS stimulants are highly efficacious in the treatment of ADHD. In double-blind placebo-controlled trials in both children and adults, 65% to 75% of subjects with ADHD have been determined to be clinical responders.
    d. Evidence suggests the two stimulant types (MPH and amphetamine) are equally efficacious in the treatment of ADHD.
    e. Long-acting forms of MPH are equally efficacious as the immediate-release forms and physicians may use long-acting forms as initial treatment; there is no need to titrate to the appropriate dose on short-acting forms.
    f. Short-acting stimulants are often used as initial treatment in small children for whom there are no long-acting forms in a sufficiently low dose.

g. Consider atomoxetine as the first medication for ADHD in individuals with an active substance abuse problem, comorbid anxiety, or tics.
h. Atomoxetine is preferred if the patient experiences severe side effects to stimulants.
i. If a patient fails to respond to trials of all of the above agents after an adequate length of time at appropriate doses for the agent, then the clinician should undertake a review of the patient's diagnosis of ADHD.
j. Tricyclic antidepressants, bupropion, guanfacine and clonidine are used in the treatment of ADHD even though they are not approved by the FDA for this purpose. These agents are considered second line therapy, to be used only after behavior therapy in combination with stimulants or atomoxetine.[8]
k. Patients should be assessed periodically to determine whether there is continued need for treatment or if symptoms have remitted.

III. Indication

Strattera is a selective norepinephrine reuptake inhibitor indicated for the treatment of Attention-Deficit/Hyperactivity Disorder (ADHD).[9]

IV. Pharmacokinetic Parameters

Atomoxetine is metabolized by the CYP2D6 system and dosing adjustments must be made in moderate to severe hepatic impairment. Table 1 summarizes the pharmacokinetic parameters for Strattera.

Table 1. Pharmacokinetic Parameters of Strattera

	(C_{max})	Metabolizing mechanism	Effects of hepatic/renal impairment
Strattera†	1 to 2 hours	98% protein bound; metabolized through the CYP2D6 system	Dosage adjustment recommended for patients with moderate to severe hepatic insufficiency.*

†Takes 4 to 6 weeks to reach optimal therapeutic efficacy.
*Dosing guidelines for hepatic impairment included in prescribing information.

V. Drug Interactions

- With other drugs that affect brain monoamine concentrations, there have been reports of serious, sometimes fatal reactions when taken with a monoamine oxidase inhibitor (MAOI). Strattera should not be taken with an MAOI, or within 2 weeks after discontinuing an MAOI.
- Paroxetine, fluoxetine, and quinidine are all CYP2D6 inhibitors; dosing of atomoxetine may need to be adjusted when given with any of these medications.
- Because of possible effects on blood pressure, Strattera should be used cautiously with pressor agents (e.g., dopamine, dobutamine).
- Strattera should be administered with caution to patients being treated with systemically-administered (oral or intravenous) albuterol (or other $beta_2$ agonists) because the action of albuterol on the cardiovascular system can be potentiated resulting in increases in heart rate and blood pressure.

VI. Warnings and Precautions

Serious Cardiovascular Events
Sudden death has been reported in association with atomoxetine treatment at usual doses in children and adolescents with structural cardiac abnormalities or other serious heart problems. Although some serious heart problems alone carry an increased risk of sudden death, atomoxetine generally should not be used in children or adolescents with known serious structural cardiac abnormalities, cardiomyopathy, serious heart rhythm abnormalities, or other serious cardiac problems that may place them at increased vulnerability to the noradrenergic effects of atomoxetine.

Children, adolescents, or adults who are being considered for treatment with atomoxetine should have a careful history (including assessment for a family history of sudden death or ventricular arrhythmia) and physical exam to assess for the presence of cardiac disease, and should receive further cardiac evaluation if findings suggest such disease. Patients who develop symptoms such as exertional chest pain, unexplained syncope, or other symptoms suggestive of cardiac disease during atomoxetine treatment should undergo a prompt cardiac evaluation.

Suicidal Ideation
Patients started on atomoxetine should be monitored for suicidal thinking and behavior, clinical worsening of symptoms, and unusual changes in behavior. The average risk of suicidal ideation in patients taking atomoxetine was 0.4% (5/1357 patients) versus none (0/851) in the placebo arm. There was 1 suicide attempt among these approximately 2200 patients, occurring in a patient treated with atomoxetine. Families and caregivers of pediatric patients being treated with atomoxetine should be alerted about the need to monitor patients for the emergence of suicidality, and to report such symptoms immediately to healthcare providers.

Severe Liver Injury
Postmarketing reports indicate that atomoxetine can cause severe liver injury in rare instances. Although no evidence of liver injury was detected in clinical trials of about 6,000 patients, there have been rare cases of clinically significant liver injury that were considered probably or possibly related to atomoxetine use. Strattera should be discontinued in patients with jaundice or laboratory evidence of liver injury, and should not be restarted.

Effects on Blood Pressure and Heart Rate
Atomoxetine should be used with caution in patients with hypertension, tachycardia, or cardiovascular or cerebrovascular disease because it can increase blood pressure and heart rate. Pulse and blood pressure should be measured at baseline, following atomoxetine dose increases, and periodically while on therapy.

Orthostatic hypotension and syncope have been reported in patients taking atomoxetine. Atomoxetine should be used with caution in any condition that may predispose patients to hypotension, or conditions associated with abrupt heart rate or blood pressure changes.

There have been spontaneous postmarketing reports of Raynaud's phenomenon (new onset and exacerbation of preexisting condition).

Emergence of New Psychotic or Manic Symptoms
Treatment emergent psychotic or manic symptoms, (e.g., hallucinations, delusional thinking, or mania) in children and adolescents without a prior history of psychotic illness or mania can be caused by atomoxetine at usual doses. If such symptoms occur, consideration should be given to a possible causal role of atomoxetine, and discontinuation of treatment.

Screening Patients for Bipolar Disorder
Particular care should be taken in treating ADHD in patients with comorbid bipolar disorder because of concern for possible induction of mixed/manic episodes. Prior to initiating treatment with atomoxetine, patients with comorbid depressive symptoms should be adequately screened to determine if they are at risk for bipolar disorder; such screening should include a detailed psychiatric history, including a family history of suicide, bipolar disorder, and depression.

Aggressive Behavior or Hostility
Patients beginning treatment for ADHD should be monitored for the appearance or worsening of aggressive behavior or hostility.

Allergic Events
Although uncommon, allergic reactions, including angioneurotic edema, urticaria, and rash, have been reported in patients taking atomoxetine.

Effects on Urine Outflow from the Bladder
A complaint of urinary retention or urinary hesitancy should be considered potentially related to atomoxetine.

Priapism
Rare postmarketing cases of priapism have been reported for pediatric and adult patients treated with atomoxetine. Prompt medical attention is required in the event of suspected priapism.

VII. Adverse Reactions

Table 2. Adverse Reactions (%) with the Use of Atomoxetine in Acute Trials

	Abdominal Pain	Vomiting	Nausea	Fatigue	Irritability	Decreased Appetite	Headache	Somnolence
Children	18	11	10	8	6	16	19	11
Adults	7	3	21	9	N/L	11	3	4

N/L = percentage results not listed in prescribing information.

VIII. Dosing and Administration

Table 3. Dosing & Administration

Brand Name	Dosage Form	Typical Starting Dose (daily)	FDA max/day	Comments
Strattera	10, 18, 25, 40, 60, 80, 100 mg capsule	**Children and adolescents up to 70 kg**: Initial dose 0.5mg/kg; target dose 1.2 mg/kg. **Children and adolescents over 70 kg and adults:** Initial dose 40 mg; target dose 80 mg.	Lesser of 1.4mg/kg or 100 mg	*Not a scheduled medication. *Do not open capsule and sprinkle. *May give qd or divided bid.

IX. Effectiveness

Table 4. Comparative Clinical Trials

Study	Method & Sample	Duration	Results
Atomoxetine, osmotically released MPH or placebo[10]	Placebo-controlled, double-blind study, patients aged 6-16 with ADHD (any subtype) Atomoxetine (0.8-1.8mg/kg/day) n=222 MPH (18-54mg/day) n=220	6 weeks	• Response rates for both atomoxetine (45%) and MPH (56%) were markedly superior to that for placebo (24%). • Response to osmotically released MPH was superior to that for atomoxetine.

Study	Method & Sample	Duration	Results
	Placebo n=74		• Of the 70 subjects who did not respond to MPH, 30 (43%) responded to atomoxetine. • Of the 29 (42%) of the 69 patients who did not respond to atomoxetine had previously responded to osmotically released MPH.
Meta-analysis comparing atomoxetine with psychostimulants in the treatment of ADHD.[11]	5 head-to-head trials	MEDLINE search (1966-December 2005)	• Based on available evidence, psychostimulants are regarded as first-line pharmacologic treatment. • Efficacy and safety of psychostimulants well established. • Adverse effects and abuse potential have led to the search for new treatments. • Atomoxetine represents an alternative treatment. • Long-term safety data are need to establish atomoxetine's place in therapy.
Augmentation of atomoxetine (ATX) with extended-release methylphenidate (MPH).[15]	Ages 6 – 12 Children with ADHD and prior stimulant treatment n=25 Received atomoxetine (1.2mg/kg/day) plus placebo.	10 weeks After 4 weeks, responders (n=4) continued on atomoxetine/placebo Remaining patients randomly assigned to either methylphenidate (ATX/MPH) (1.1 mg/kg/day) or placebo augmentation (ATX/PBO) for another 6 weeks.	• Categorical increases in vital signs occurred for 5 patients (3 patients in ATX/MPH, 2 patients in ATX/PBO) • Sixteen percent discontinued the study due to adverse effects, but no difference between augmentation groups. • Atomoxetine treatment was efficacious on outcome measures, but methylphenidate did not enhance response. • Conclusions limited by small sample size.

X. Conclusion

Atomoxetine is a relatively new, nonstimulant medication that is classified as a norepinephrine reuptake inhibitor and works by selectively inhibiting presynaptic norepinephrine transporters. Recently, there has been increasing interest in combining nonstimulant therapies with stimulants to further enhance treatment effects. [12] Atomoxetine is not FDA approved for use in combination with a stimulant. Because there is virtually no research to establish safety and effectiveness of combined pharmacotherapy with these agents, careful monitoring is needed.[13] Clinicians should also be aware of emergent dyskinesias when combining atomoxetine with dopaminergic, noradrenergic, or serotonergic medications.[14]

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North Dakota Medicaid
Strattera Utilization
11/01/2007 – 10/31/2008

Label Name	Rx Num	Total Reimb Amt	Recipients
STRATTERA	2465	$303,138.76	435 recipients

Extended Release Products
Used to treat ADHD
Utilization
11/01/2007 – 10/31/2008

Label Name	Rx Num	Total Reimb Amt
ADDERALL XR 10 MG CAPSULE	685	$82,504.74
ADDERALL XR 15 MG CAPSULE	669	$78,287.80
ADDERALL XR 20 MG CAPSULE	1420	$211,489.82
ADDERALL XR 25 MG CAPSULE	546	$69,036.78
ADDERALL XR 30 MG CAPSULE	1431	$200,505.03
ADDERALL XR 5 MG CAPSULE	315	$37,290.88
CONCERTA 18 MG TABLET SA	839	$81,135.94
CONCERTA 27 MG TABLET SA	905	$86,152.70
CONCERTA 36 MG TABLET SA	2727	$352,129.59
CONCERTA 54 MG TABLET SA	2324	$260,109.01
DAYTRANA 10 MG/9 HR PATCH	150	$16,899.01
DAYTRANA 15 MG/9 HR PATCH	119	$14,722.63
DAYTRANA 20 MG/9 HOUR PATCH	167	$19,912.88
DAYTRANA 30 MG/9 HOUR PATCH	221	$26,862.31
FOCALIN XR 10 MG CAPSULE	579	$58,953.72
FOCALIN XR 15 MG CAPSULE	278	$29,904.48
FOCALIN XR 20 MG CAPSULE	771	$84,192.50
FOCALIN XR 5 MG CAPSULE	238	$23,704.52
METADATE CD 10 MG CAPSULE	253	$23,043.50
METADATE CD 20 MG CAPSULE	603	$56,690.50
METADATE CD 30 MG CAPSULE	454	$45,091.57
METADATE CD 40 MG CAPSULE	310	$37,150.62
METADATE CD 50 MG CAPSULE	62	$9,647.73
METADATE CD 60 MG CAPSULE	28	$4,679.90
METADATE ER 20 MG TABLET SA	7	$172.83
METHYLIN ER 10 MG TABLET SA	117	$2,909.79
METHYLIN ER 20 MG TABLET SA	228	$6,570.69
METHYLPHENIDATE 20 MG TAB SR	71	$1,929.03
METHYLPHENIDATE ER 20 MG TAB	24	$582.36
RITALIN LA 10 MG CAPSULE	94	$11,318.58
RITALIN LA 20 MG CAPSULE	287	$25,648.32

Label Name	Rx Num	Total Reimb Amt
RITALIN LA 30 MG CAPSULE	304	$26,901.22
RITALIN LA 40 MG CAPSULE	360	$34,493.72
STRATTERA 10 MG CAPSULE	211	$26,038.39
STRATTERA 100 MG CAPSULE	50	$6,630.86
STRATTERA 18 MG CAPSULE	198	$22,658.48
STRATTERA 25 MG CAPSULE	541	$67,136.52
STRATTERA 40 MG CAPSULE	880	$110,608.90
STRATTERA 60 MG CAPSULE	428	$49,304.80
STRATTERA 80 MG CAPSULE	157	$20,760.81
VYVANSE 20 MG CAPSULE	34	$3,192.83
VYVANSE 30 MG CAPSULE	467	$46,924.61
VYVANSE 40 MG CAPSULE	36	$3,498.87
VYVANSE 50 MG CAPSULE	494	$51,631.60
VYVANSE 60 MG CAPSULE	14	$1,269.74
VYVANSE 70 MG CAPSULE	401	$43,136.67
3023 Recipients	**21498**	**$2,473,449.77**

Extended Release Products
By Total Reimbursed Amount
11/01/2007 – 10/31/2008

Label Name	Rx Num	Total Reimb Amt
CONCERTA 36 MG TABLET SA	2727	$352,129.59
CONCERTA 54 MG TABLET SA	2324	$260,109.01
ADDERALL XR 20 MG CAPSULE	1420	$211,489.82
ADDERALL XR 30 MG CAPSULE	1431	$200,505.03
STRATTERA 40 MG CAPSULE	880	$110,608.90
CONCERTA 27 MG TABLET SA	905	$86,152.70
FOCALIN XR 20 MG CAPSULE	771	$84,192.50
ADDERALL XR 10 MG CAPSULE	685	$82,504.74
CONCERTA 18 MG TABLET SA	839	$81,135.94
ADDERALL XR 15 MG CAPSULE	669	$78,287.80
ADDERALL XR 25 MG CAPSULE	546	$69,036.78
STRATTERA 25 MG CAPSULE	541	$67,136.52
FOCALIN XR 10 MG CAPSULE	579	$58,953.72
METADATE CD 20 MG CAPSULE	603	$56,690.50
VYVANSE 50 MG CAPSULE	494	$51,631.60
STRATTERA 60 MG CAPSULE	428	$49,304.80
VYVANSE 30 MG CAPSULE	467	$46,924.61
METADATE CD 30 MG CAPSULE	454	$45,091.57
VYVANSE 70 MG CAPSULE	401	$43,136.67
ADDERALL XR 5 MG CAPSULE	315	$37,290.88

Label Name	Rx Num	Total Reimb Amt
METADATE CD 40 MG CAPSULE	310	$37,150.62
RITALIN LA 40 MG CAPSULE	360	$34,493.72
FOCALIN XR 15 MG CAPSULE	278	$29,904.48
RITALIN LA 30 MG CAPSULE	304	$26,901.22
DAYTRANA 30 MG/9 HOUR PATCH	221	$26,862.31
STRATTERA 10 MG CAPSULE	211	$26,038.39
RITALIN LA 20 MG CAPSULE	287	$25,648.32
FOCALIN XR 5 MG CAPSULE	238	$23,704.52
METADATE CD 10 MG CAPSULE	253	$23,043.50
STRATTERA 18 MG CAPSULE	198	$22,658.48
STRATTERA 80 MG CAPSULE	157	$20,760.81
DAYTRANA 20 MG/9 HOUR PATCH	167	$19,912.88
DAYTRANA 10 MG/9 HR PATCH	150	$16,899.01
DAYTRANA 15 MG/9 HR PATCH	119	$14,722.63
RITALIN LA 10 MG CAPSULE	94	$11,318.58
METADATE CD 50 MG CAPSULE	62	$9,647.73
STRATTERA 100 MG CAPSULE	50	$6,630.86
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METADATE CD 60 MG CAPSULE	28	$4,679.90
VYVANSE 40 MG CAPSULE	36	$3,498.87
VYVANSE 20 MG CAPSULE	34	$3,192.83
METHYLIN ER 10 MG TABLET SA	117	$2,909.79
METHYLPHENIDATE 20 MG TAB SR	71	$1,929.03
VYVANSE 60 MG CAPSULE	14	$1,269.74
METHYLPHENIDATE ER 20 MG TAB	24	$582.36
METADATE ER 20 MG TABLET SA	7	$172.83
3,023 Recipients	**21498**	**$2,473,449.77**

Extended Release Products
Market Share

Label Name	%
ADDERALL XR	23.56
CONCERTA	31.61
DAYTRANA	3.06
FOCALIN	8.68
METADATE	7.99
METHYLPHENIDATE	2.05
RITALIN	4.86
STRATTERA	11.47
VYVANSE	6.73

Strattera and Stimulant Consecutive Duplication
05/01/08 to 10/31/08
Overlapping Timeframe: 30 days
Total Days Supply: 30
Number of Therapies: 2 or more

Patient	Drug Name	2nd Drug Name	3rd Drug Name
1	ADDERALL XR	STRATTERA	
	ADDERALL XR	STRATTERA	
2	METADATE CD	STRATTERA	
	METADATE CD	STRATTERA	
3	ADDERALL XR	STRATTERA	
	ADDERALL XR	STRATTERA	
4	CONCERTA	STRATTERA	
	CONCERTA	STRATTERA	
5	ADDERALL XR	STRATTERA	
	ADDERALL XR	STRATTERA	
6	DAYTRANA	STRATTERA	
	DAYTRANA	STRATTERA	
7	STRATTERA	VYVANSE	
	STRATTERA	VYVANSE	
8	ADDERALL XR	STRATTERA	
	ADDERALL XR	STRATTERA	
	ADDERALL XR	STRATTERA	
9	CONCERTA	STRATTERA	
	CONCERTA	STRATTERA	
	CONCERTA	STRATTERA	
10	CONCERTA	STRATTERA	
	CONCERTA	STRATTERA	
	CONCERTA	STRATTERA	
	CONCERTA	STRATTERA	
11	DAYTRANA	RITALIN LA	STRATTERA
	DAYTRANA	RITALIN LA	STRATTERA
12	METADATE CD	STRATTERA	
	METADATE CD	STRATTERA	
	METADATE CD	STRATTERA	

Patient	Drug Name	2nd Drug Name	3rd Drug Name
13	METADATE CD	STRATTERA	
	METADATE CD	STRATTERA	
14	CONCERTA	STRATTERA	
	CONCERTA	STRATTERA	
15	CONCERTA	STRATTERA	
	CONCERTA	STRATTERA	
16	CONCERTA	STRATTERA	
	CONCERTA	STRATTERA	
	CONCERTA	STRATTERA	
17	STRATTERA	VYVANSE	
	STRATTERA	VYVANSE	
18	CONCERTA	FOCALIN XR	STRATTERA
	CONCERTA	FOCALIN XR	STRATTERA
	CONCERTA	FOCALIN XR	STRATTERA
19	ADDERALL XR	STRATTERA	
	ADDERALL XR	STRATTERA	
20	CONCERTA	STRATTERA	
	CONCERTA	STRATTERA	
	CONCERTA	STRATTERA	
21	CONCERTA	STRATTERA	
	CONCERTA	STRATTERA	
22	FOCALIN XR	STRATTERA	
	FOCALIN XR	STRATTERA	
23	STRATTERA	VYVANSE	
	STRATTERA	VYVANSE	
	STRATTERA	VYVANSE	
24	ADDERALL XR	STRATTERA	
	ADDERALL XR	STRATTERA	
	ADDERALL XR	STRATTERA	
	ADDERALL XR	STRATTERA	

North Dakota Department of Human Services
Pharmacotherapy Review
Aczone® (Dapsone) Gel 5%
March 2, 2009

I. Overview

Aczone gel 5% is a topical formulation of dapsone approved for the treatment of acne vulgaris.[2]

II. Current Treatment Guidelines for Acne Management

In 2006 a work group of recognized experts was convened in the field of acne, to develop guidelines for the treatment of acne vulgaris.[3]

- Topical therapy is a standard of care in acne treatment.
- Topical retinoids are important in acne treatment.
- Benzoyl peroxide and combinations with erythromycin or clindamycin are effective acne treatments.
- Topical antibiotics (e.g., erythromycin and clindamycin) are effective acne treatments. However, the use of these agents alone can be associated with the development of bacterial resistance.
- Salicylic acid is moderately effective in the treatment of acne.
- Azelaic acid has been shown to be effective in clinical trials, but its clinical use, compared to other agents, has limited efficacy according to experts.
- Data from peer-reviewed literature regarding the efficacy of sulfur, resorcinol, sodium sulfacetamide, aluminum chloride, and zinc are limited.
- Employing multiple topical agents that affect different aspects of acne pathogenesis can be useful. However, it is the opinion of the work group that such agents not be applied simultaneously unless they are known to be compatible.

In 2003, an international committee of physicians and researchers in the field of acne, working together as the Global Alliance to Improve Outcomes in Acne, developed consensus guidelines for the treatment of acne.[4]

- A topical retinoid should be the foundation of treatment for most patients with acne, because retinoids target the microcomedo, the precursor to all acne lesions. Retinoids also are comedolytic and have intrinsic anti-inflammatory effects, thus targeting 2 pathogenic factors in acne.
- Combining a topical retinoid with an antimicrobial agent targets 3 pathogenic factors, and clinical trials have shown that combination therapy results in significantly faster and greater clearing as opposed to antimicrobial therapy alone.
- Oral antibiotics should be used only in moderate-to-severe acne, should not be used as monotherapy, and should be discontinued as soon as possible (usually within 8-12 weeks).
- Because of their effect on the microcomedo, topical retinoids also are recommended as an important facet of maintenance therapy.

III. Pharmacology

The mechanism of action of dapsone gel in treating acne vulgaris is not known.

IV. Warnings/Precautions

If signs and symptoms suggestive of hemolytic anemia occur, Aczone should be discontinued.

Oral dapsone treatment has produced dose-related hemolysis and hemolytic anemia. Individuals with glucose-6-phosphate dehydrogenase (G6PD) deficiency are more prone to hemolysis with the use of certain drugs. There was no evidence of clinically relevant hemolysis or anemia in patients treated with Aczone, including those with G6PD deficiency. Some patients with G6PD deficiency using Aczone developed laboratory changes suggestive of hemolysis. Combining Aczone with trimethoprim /sulfamethoxazole may increase the likelihood of hemolysis in patients with G6PD deficiency.

Avoid use in patients taking oral dapsone or antimalarial medications because of the potential for hemolytic reactions.

Peripheral neuropathy has been reported with oral dapsone treatment. However, no events of peripheral neuropathy were observed in clinical trials with Aczone treatment.

Skin reactions (toxic epidermal necrolysis, erythema multiforme, morbilliform and scarlatiniform reactions, bullous and exfoliative dermatitis, erythema nodosum, and urticaria) have been reported with oral dapsone treatment. These types of skin reactions were not observed in clinical trials with Aczone treatment.

V. Drug Interactions

Topical benzoyl peroxide used at the same time as Aczone may result in temporary local yellow or orange discoloration of the skin and facial hair.

Concomitant use of double-strength trimethoprim/sulfamethoxazole (TMP/SMX) and Aczone increases the systemic level of dapsone and its metabolites. Exposure from the proposed topical dose is about 1% of that from the 100mg oral dose, even when co-administered with TMP/SMX.

VI. Adverse Reactions

Serious adverse reactions reported in patients treated with Aczone during clinical trials included but were not limited to the following:

- Nervous system/Psychiatric - Suicide attempt, tonic clonic movements.
- Gastrointestinal - Abdominal pain, severe vomiting, pancreatitis.
- Other - Severe pharyngitis

Aczone was evaluated for 12 weeks in four controlled studies for local cutaneous events in 1819 patients. The most common events reported from these studies include oiliness/peeling, dryness, and erythema.

VII. Dosage and Administration

- Apply twice daily.
- Apply approximately a pea-sized amount in a thin layer to the acne affected area.
- If there is no improvement after 12 weeks, treatment should be reassessed.

VIII. Cost Comparisons

Aczone® 5% gel is available in a 30 gram tube. Average wholesale price (AWP) is $148.75.

IX. Efficacy

Two 12 week, randomized, double blind, vehicle controlled, clinical studies were conducted to evaluate Aczone for the treatment of patients with acne vulgaris. Aczone was shown to be modestly more effective than vehicle control in terms of Global Acne Assessment Scale and the mean percentage reduction in inflammatory, noninflammatory, and total lesion counts at week 12. The percent reductions in lesions from baseline to week 12 in the two studies are as follows:

	Study 1		Study 2	
	Aczone N=745	Placebo N=740	Aczone N=761	Placebo N=764
Inflammatory	46%	42%	48%	40%
Noninflammatory	31%	24%	30%	21%
Total	38%	32%	37%	29%

X. Conclusion

Aczone gel is a topical formulation of dapsone. It is modestly more effective than placebo in reducing acne lesions. It has not been directly compared to other topical acne agents (e.g., tretinoin, etc.) in clinical trials. Guidelines recommend the use of topical retinoids, benzoyl peroxide and antibiotics for mild to moderate acne. Aczone gel should be reserved for those patients who cannot tolerate other therapies.

References:

1. Wolters Kluwer Health, Inc. Drug Facts and Comparisons. St. Louis, MO. 2008.
2. Aczone® [package insert]. Irvine, CA: Allergan, Inc.; September 2008.
3. Strauss J. Guidelines of care for acne vulgaris management. J Am Acad Dermatol 2007; 56(4):651-663. Available online at http://www.aad.org. Accessed January 2009.
4. Zaenglein A. Expert Committee Recommendations for Acne Management. Pediatrics 2006; 118:1188-1199. Available online at http://www.pediatrics.org. Accessed January 2009.
5. New drug: Aczone (dapsone) 5% gel. Pharmacist's Letter/Prescriber's Letter 2009;25(1):250112.

Aczone Gel PA FORM

Prior Authorization Vendor for ND Medicaid

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Aczone gel must try other topical acne agents as first line therapy.

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ ACZONE GEL	**Diagnosis for this request:**		

Qualifications for coverage:

□ Failed acne therapy Name of medication failed: _____	Start Date	End Date	Dose	Frequency

□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*

Physician Signature	Date

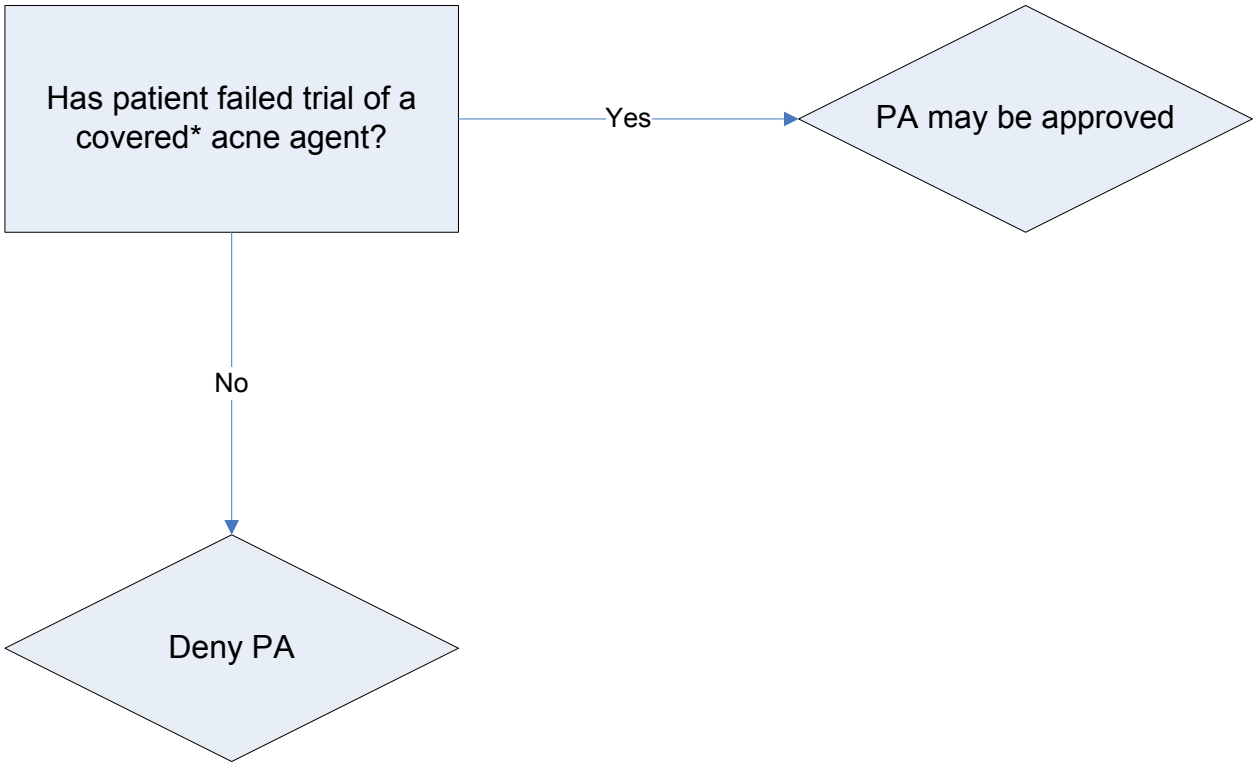
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Aczone Authorization Algorithm



*Tretinoin and benzoyl peroxide products do not require a PA

NORTH DAKOTA MEDICAID
RETROSPECTIVE DRUG UTILIZATION REVIEW
CRITERIA RECOMMENDATIONS
1ST QUARTER 2009

Recommendations ***Approved*** ***Rejected***

1. Clopidogrel / Proton Pump Inhibitors _____ _____

Alert Message: Some recent studies suggest a possible interaction if clopidogrel (Plavix) is given concurrently with a proton pump inhibitor (PPI). Coadministration of these agents may cause decreased clopidogrel anti-platelet efficacy which may lead to an increased incidence of adverse cardiovascular events. Monitor these patients closely for loss of clopidogrel efficacy. Current ACC/ACF/AHA guidelines have not changed and a PPI is still recommended for gastroprotection in patients receiving clopidogrel and NSAIDS who are at high risk for GI bleeds.

Conflict Code: DD – Drug/Drug Interaction
Drug/Disease:

Util A	Util B	Util C
Clopidogrel	Omeprazole	
	Esomeprazole	
	Lansoprazole	
	Pantoprazole	
	Rabeprazole	

References:

Aubert RE et al. Proton pump inhibitors effect on clopidogrel effectiveness: the clopidogrel Medco outcomes study (abstract 3998). Circulation. 2008;118:S815.
Dunn SP et al. Baseline proton pump inhibitor use is associated with increased cardiovascular events with and without use of clopidogrel in the CREDO trial (abstract 3999). Circulation. 2008;118:S815.
American Heart Association. American College of Cardiology (ACC)/American College of Gastroenterology (ACG)/American Heart Association (AHA) Joint Committee on Studies Regarding Possible Interaction of Clopidogrel and Proton Pump Inhibitors. Accessed December 22, 2008.
American College of Cardiology (ACC)/American College of Gastroenterology (ACG)/American Heart Association (AHA) Joint Comment on Studies Regarding Possible Interaction of Clopidogrel and Proton Pump Inhibitors. Available at: http://americanheart.mediaroom.com/index.php?s=43&item=611&printable Accessed January 1, 2009.
Do proton pump inhibitors decrease clopidogrel activity? Pharmacist Letter/Prescriber's Letter 2008;24(11):241114.

2. Lovastatin / Amiodarone _____ _____

Alert Message: Concurrent use of amiodarone and lovastatin may increase the risk of myopathy/rhabdomyolysis, particularly with lovastatin doses greater than 40 mg daily. Doses of lovastatin greater than 40 mg per day in patients taking amiodarone should be avoided unless the clinical benefit outweighs the increased risk of myopathy/rhabdomyolysis. Consider using an alternative statin (i.e., pravastatin, fluvastatin, or rosuvastatin) which is not metabolized by CYP3A4.
Conflict Code: DD – Drug/Drug Interaction
Drug/Disease:

Util A	Util B	Util C
Lovastatin 60 mg	Amiodarone	

References:

Facts & Comparisons, 2008 Updates.
Micromedex Healthcare Series, DrugDex Drug Evaluations, 2008.
Mevacor Prescribing Information, Sept. 2008, Merck & Co., Inc.

3. Lovastatin / Verapamil _____ _____

Alert Message: Concurrent use of verapamil and lovastatin may increase the risk of myopathy/rhabdomyolysis, particularly with lovastatin doses greater than 40 mg daily. Doses of lovastatin greater than 40 mg per day in patients taking verapamil should be avoided unless the clinical benefit outweighs the increased risk of myopathy/rhabdomyolysis. Consider using an alternative statin (i.e., pravastatin, fluvastatin, or rosuvastatin) which is not metabolized by CYP3A4.
Conflict Code: DD – Drug/Drug Interaction
Drug/Disease:

Util A	Util B	Util C
Lovastatin 60 mg	Verapamil	

References:
Facts & Comparisons, 2008 Updates.
Micromedex Healthcare Series, DrugDex Drug Evaluations, 2008.
Mevacor Prescribing Information, Sept. 2008, Merck & Co., Inc.

4. Atorvastatin / Amiodarone _____ _____

Alert Message: Concurrent use of amiodarone and atorvastatin may increase the risk of myopathy/rhabdomyolysis due to inhibition, by amiodarone, of CYP3A4-mediated atorvastatin metabolism. Consider using an alternative statin (i.e., pravastatin, fluvastatin, or rosuvastatin) which is not metabolized by CYP3A4. If coadministration cannot be avoided, use the lowest possible dose of atorvastatin.
Conflict Code: DD – Drug/Drug Interaction
Drug/Disease:

Util A	Util B	Util C
Atorvastatin 20, 40 & 80 mg	Amiodarone	

References:
Facts & Comparisons, 2008 Updates.
Micromedex Healthcare Series, DrugDex Drug Evaluations, 2008.
Clinical Pharmacology, 2008 Gold Standard Media.

5. Atorvastatin / Verapamil _____ _____

Alert Message: Concurrent use of verapamil and atorvastatin may increase the risk of myopathy/rhabdomyolysis due to inhibition, by verapamil, of CYP3A4-mediated atorvastatin metabolism. Consider using an alternative statin (i.e., pravastatin, fluvastatin, or rosuvastatin) which is not metabolized by CYP3A4. If coadministration cannot be avoided, use the lowest possible dose of atorvastatin.
Conflict Code: DD – Drug/Drug Interaction
Drug/Disease:

Util A	Util B	Util C
Atorvastatin 20, 40 & 80 mg	Verapamil	

References:
Facts & Comparisons, 2008 Updates.
Micromedex Healthcare Series, DrugDex Drug Evaluations, 2008.
Clinical Pharmacology, 2008 Gold Standard Media.

6. Opioids / Constipation / Laxatives & Stool Softeners _____ _____

Alert Message: Opioid-induced constipation is an almost unavoidable adverse effect of chronic opioid therapy that requires frequent assessment. A continuous bowel maintenance program which uses a stimulant laxative (i.e. senna, bisacodyl, etc.) in combination with a stool softener (docusate) may be necessary to prevent complications.
Conflict Code: TA – Therapeutic Appropriateness
Drug/Disease:

Util A	Util B	Util C (Negating)	
Meperidine		Polycarbophil	Methylnaltrexone
Morphine		Cascara Sagrada	Saline Laxatives
Hydromorphone		Senna	Methylcellulose
Oxymorphone		Bisacodyl	
Codeine		Glycerin	
Hydrocodone		Caster Oil	
Oxycodone		Mineral Oil	
Levorphanol		Docusate	
Methadone		Psyllium	
Fentanyl		Lactulose	
Opium		Polyethylene Glycol	
Pentazocine		Sorbitol Solution	

References:
Swegle JM, Logemann C. Management of Common Opioid-Induced Adverse Effects. Am Fam Physician 2006;74:1347-1354.
Bowel Regimen in Chronic Narcotic Use, Family Medicine Notebook, 2003.
Brookoff D, Hospital Practice: Chronic Pain: 2 The Case for Opioids. McGraw-Hill Companies, 2000.

7. Oxandrolone / Warfarin _____ _____

Alert Message: Concurrent dosing of oxandrolone, a synthetic derivative of testosterone, and warfarin should be avoided due to a large increase in INR or PT. When oxandrolone is prescribed to patients being treated with warfarin, doses of warfarin may need to be decreased significantly to maintain a therapeutic INR level and diminish the risk of serious bleeding.
Conflict Code: DD – Drug/Drug Interaction
Drug/Disease:

Util A	Util B	Util C
Oxandrolone	Warfarin	

References:
Facts & Comparisons, 2008 Updates.
Oxandrin Prescribing Information, May 2005, Savient Pharmaceuticals Inc.
Clinical Pharmacology, 2008 Gold Standard Media.

DUR Board Meeting
June 1, 2009

Pioneer Room
State Capitol

1pm

north dakota
department of
human services

North Dakota Medicaid
DUR Board Meeting
Agenda
Pioneer Room
State Capitol
June 1, 2009
1pm

1. Administrative items
    - Travel vouchers
    - Board members sign in

2. Old business
    - Review and approval of minutes of 03/02/09 meeting — Chairman
    - Budget update — Brendan
    - Tablet splitting update — Brendan
    - ADHD first fill quantities update — Brendan
    - Second review of Aczone — HID
    - Yearly PA review — HID
        - Sedative/Hypnotics
        - Qualaquin
        - ACE-I/ARBs/Renin Inhibitors
        - Synagis
        - GH/IGF-1

3. New business
    - Legislative update — Brendan
    - Review of Uloric — HID
    - Review of Moxatag
    - Review of Savella
    - Criteria recommendations — Brendan
    - Upcoming meeting date/agenda — Chairman
    - Adjourn to Executive Session to discuss patient profiles (time permitting) — Chairman

4. Adjourn — Chairman

Please remember to turn all cellular phones and pagers to silent mode during the meeting.

Drug Utilization Review (DUR) Meeting Minutes
March 2, 2009

Members Present: Patricia Churchill, Norman Byers, Carrie Sorenson, Greg Pfister, Steve Irsfeld, Kim Krohn, Jeffrey Hostetter, John Savageau, Scott Setzepfandt, Leeann Ness, Carlotta McCleary, Cheryl Huber and Todd Twogood.
Members Absent: Gary Betting
Medicaid Pharmacy Department: Brendan Joyce
HID Staff Present: Candace Rieth

Chair, C. Sorenson called the meeting to order at 1:09 pm. Chair, C. Sorenson asked for a motion to approve the minutes from the December meeting. N. Byers moved that the minutes be approved and J. Hostetter seconded the motion. Chair, C. Sorenson called for a voice vote to approve the minutes. The motion passed with no audible dissent.

Budget Update
B. Joyce stated that the budget information is going through the legislative process and that he will update the Board at the next meeting.

Tablet Splitting Initiative
Previously, the Board voted to implement a tablet splitting initiative with continuous updates from the State. The State is interested in adding Lipitor and Lexapro to the list of medications that can be split. An educational endeavor, including provider mailings and newsletters will occur prior to implementation.

Yearly PA Review
The Board reviews products annually that have previously been placed on prior authorization. This allows the Board a chance to update the prior authorization forms and criteria. Antihistamines, PPIs, COX-II/NSAIDs, Revatio, Actoplus met, and Azasite/Quixin were reviewed. The following recommendation were made: change the wording of the forms from 'physician' to 'prescriber' to include prescriptions written by nurse practitioners, make the medications listed on the Ophthalmic PA form the same as the medications listed on the Ophthalmic PA Criteria form and to include omeprazole on the PPI criteria form.

Legislative Update
B. Joyce gave a legislative update on HB 1385. The committee reviewing the exempt drug classes from prior authorization received a copy of the DUR Board's recommendations regarding those classes. A vote was taken in the house to maintain the exempt status of these classes. Outcomes of the Senate vote will be presented at the June meeting.

Strattera and Stimulants
The board reviewed patients receiving concurrent prescriptions of Strattera and stimulants. A recommendation was made to limit the initial day's supply of stimulants to decrease waste and increase compliance. The Board would like the State to move forward with an educational endeavor prior to implementation of initial fill quantity limits on stimulants.

Aczone Review
B. Joyce reviewed Aczone with Board members. There was no public comment. N. Byers made a motion to prior authorize Aczone. J. Savageau seconded the motion. This topic will be brought up again at the next Board meeting for finalization.

Criteria Recommendations

The recommended RDUR criteria enclosed in the packet were developed from product information provided by the manufacturers and usually are consistent with new indications, new drugs added, new warnings, etc. These proposed criteria will be added to the current set of criteria, and will be used in future DUR cycles. N. Byers moved to approve the new criteria and C. Huber seconded the motion. Chair, C. Sorenson called for a voice vote. The motion passed with no audible dissent.

The next DUR board meeting will be held June 1, 2009. J. Hostetter made a motion to adjourn the meeting and K. Krohn seconded. Chair C. Sorenson adjourned the meeting at 2:10 pm.

NORTH DAKOTA DEPARTMENT

Medical Services

John Hoeven, Governor
Carol K. Olson, Executive Director

(701) 328-2321
Fax (701) 328-1544
Toll Free 1-800-755-2604
Provider Relations (701) 328-4030

[TODAY]

[adrs1]
[adrs2]
[adrs3]
[adrs4]

DEAR [tadrs1]:

In compliance with the OBRA '90 federal legislation, state Medicaid agencies are mandated to have an operating Drug Use Review (DUR) Board. One large part of the DUR Board's duties is to facilitate provider education. Part of this process is to help assure that Medicaid beneficiaries receive appropriate medications in the most cost-effective manner, thus conserving state expenditures for drugs whenever possible.

The North Dakota DUR Board recently requested that Medicaid pharmacy claims be scanned for potential cost savings with implementation of a tablet splitting initiative. According to a report published in the American Journal of Managed Care[1], healthcare plans can realize an average savings of 36 percent (based on average wholesale prices or AWP) on those medications that are not priced based on their dosage strength, but instead are available in two or more strengths with a similar price.

You are receiving this letter because Department records indicate a patient(s), in your care, received a prescription for strength of Lipitor or Lexapro that can be split. We are asking that patients currently receiving Lipitor 10mg tablets be converted to ½ of a Lipitor 20mg tablet, patients currently receiving Lipitor 20mg tablets be converted to ½ of a Lipitor 40mg tablet, patients receiving Lexapro 5mg tablets be converted to ½ of a Lexapro 10mg tablet and patients currently taking Lexapro 10mg tablets be converted to ½ of a Lexapro 20mg tablet. Potential savings for splitting Lipitor and Lexapro are approximately $167,000 annually. Please discuss this option with patients and change Lipitor and Lexapro prescriptions to tablet splitting when possible.

The Department is dedicated to improving the health and well being of our patients. We thank you for your participation in the North Dakota Medicaid Program and hope that you will assist us in making the most effective utilization of our resources as we continue to provide valuable pharmacy benefits to our patients.

Sincerely,

Brendan K. Joyce PharmD

Brendan K. Joyce, PharmD
Administrator, Pharmacy Services
[provid]

[1] Stafford RS, Radley DC. The Potential of Pill Splitting to Achieve Cost Savings. Am J Man Care. 2002 August; 8(8): 706-12.

NORTH DAKOTA DEPARTMENT

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[TODAY]

[adrs1]
[adrs2]
[adrs3]
[adrs4]

DEAR [tadrs1]:

In compliance with the OBRA '90 federal legislation, state Medicaid agencies are mandated to have an operating Drug Use Review (DUR) Board. One large part of the DUR Board's duties is to facilitate provider education. Part of this process is to help assure that Medicaid beneficiaries receive appropriate medications in the most cost-effective manner, thus conserving state expenditures for drugs whenever possible.

The North Dakota DUR Board recently reviewed appropriate treatment of attention deficit hyperactivity disorder (ADHD). Annual expenditures* to the state have increased approximately 27% between 2006 and 2008. Current annual costs* for the medications used to treat ADHD are approximately 2.8 million dollars. In an effort to improve patient care and control pharmacy costs, the DUR Board suggested that the Department undertake an educational endeavor to address combination therapy, duration of therapy and stimulant wastage during the dose titration process.

Research currently available has not shown clear advantages of one stimulant over another, but encourages titration to the highest recommended dosage before switching to another agent. Because evidence is lacking, the combination of two or more ADHD medications is discouraged. Duration of activity should also be taken into consideration when dosing patients. A scan of stimulants and Strattera® pharmacy claims suggests that dosing guidelines for long-acting stimulants are not always followed (patients are dosed more frequently than once a day). Particular attention should be paid to single daily dosing of agents considered to be long-acting.

The initial dose and titration schedule of stimulants must be individualized to each patient and because the patient-clinician communication should be frequent during this initiation phase, it may be prudent to **limit prescription quantities to a 10 day supply** when starting a patient on a new dose or new medication; keeping the prescription quantities low until the patient is stabilized on an effective dose. This will prevent the waste that occurs when a patient fills a prescription for 30 days worth of medication, and then after three days informs the provider that the dose isn't working for them. Since it is not possible to predict the optimal dose based solely on age, weight, or symptom severity, the usual approach is to begin with a very small dose of a stimulant medication and then increase the dose gradually allowing about three to seven days on a dose before trying a larger one.

The Department would also ask that providers consider appropriate **dose optimization** when higher strengths are commercially available. For example, a patient receiving Adderall® XR 10 mg one capsule every morning + Adderall XR 15 mg one capsule every morning should receive the commercially available Adderall XR 25 mg capsule instead. As another example, a patient that receives Concerta® 27 mg two tablets every morning should receive the commercially available Concerta 54 mg.

You are receiving this letter because Department records indicate a patient(s), in your care, received a prescription for an agent used to treat ADHD. In presenting this information to you, the Department recognizes that the management of each patient's drug therapy depends upon an assessment of the patient's entire clinical situation about which we are not fully aware. In the future when dose adjusting stimulants, please consider writing each prescription for a small quantity to minimize waste. All stimulant claims will be reviewed in 6 months to determine if this educational endeavor is successful.

*before rebates

NORTH DAKOTA DEPARTMENT

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Toll Free 1-800-755-2604
Provider Relations (701) 328-4030

The Department is dedicated to improving the health and well being of our patients. We thank you for your participation in the North Dakota Medicaid Program and hope that you will assist us in making the most effective utilization of our resources as we continue to provide valuable pharmacy benefits to our patients.

Sincerely,

Brendan K. Joyce, PharmD
Administrator, Pharmacy Services

[provid]

Aczone Gel PA FORM

Prior Authorization Vendor for ND Medicaid

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Aczone gel must try other topical acne agents as first line therapy.

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ ACZONE GEL	**Diagnosis for this request:**		

Qualifications for coverage:

□ Failed acne therapy Name of medication failed: _____	Start Date	End Date	Dose	Frequency

□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*

Physician Signature	Date

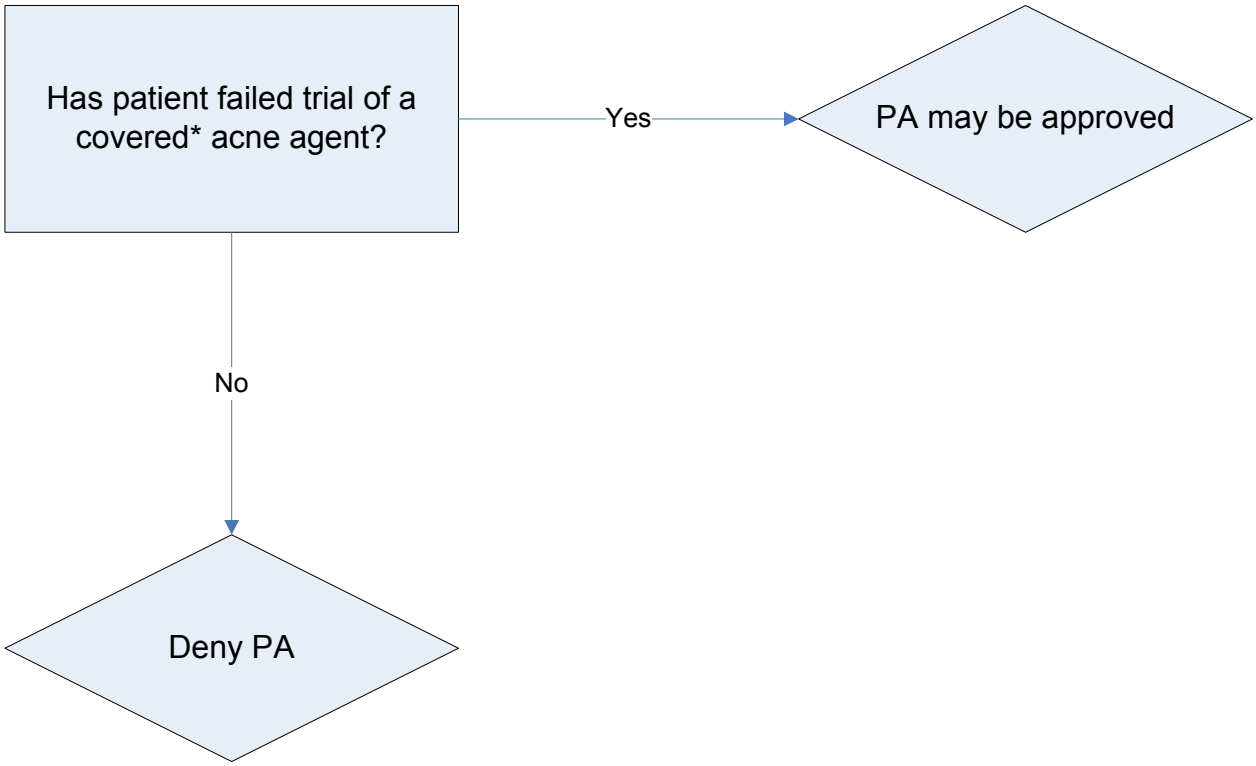
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Aczone Authorization Algorithm



*Tretinoin and benzoyl peroxide products do not require a PA

HEALTH INFORMATION DESIGNS

Prior Authorization Vendor for ND Medicaid

Sedative/Hypnotic PA Form

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for a name brand Sedative/Hypnotic must use Ambien® (zolpidem) as first line therapy.

****Note:***

- **The PA will be approved if there is a failed trial of Ambien (zolpidem).**
- **Estazolam, flurazepam, temazepam, triazolam, quazepam and Ambien (zolpidem) do not require a PA.**

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage:	**Diagnosis for this request:**		
Qualifications for coverage:			
□ Failed Ambien (zolpidem)	Start Date: End Date:	Dose: Frequency:	
□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*			
Physician Signature		Date	

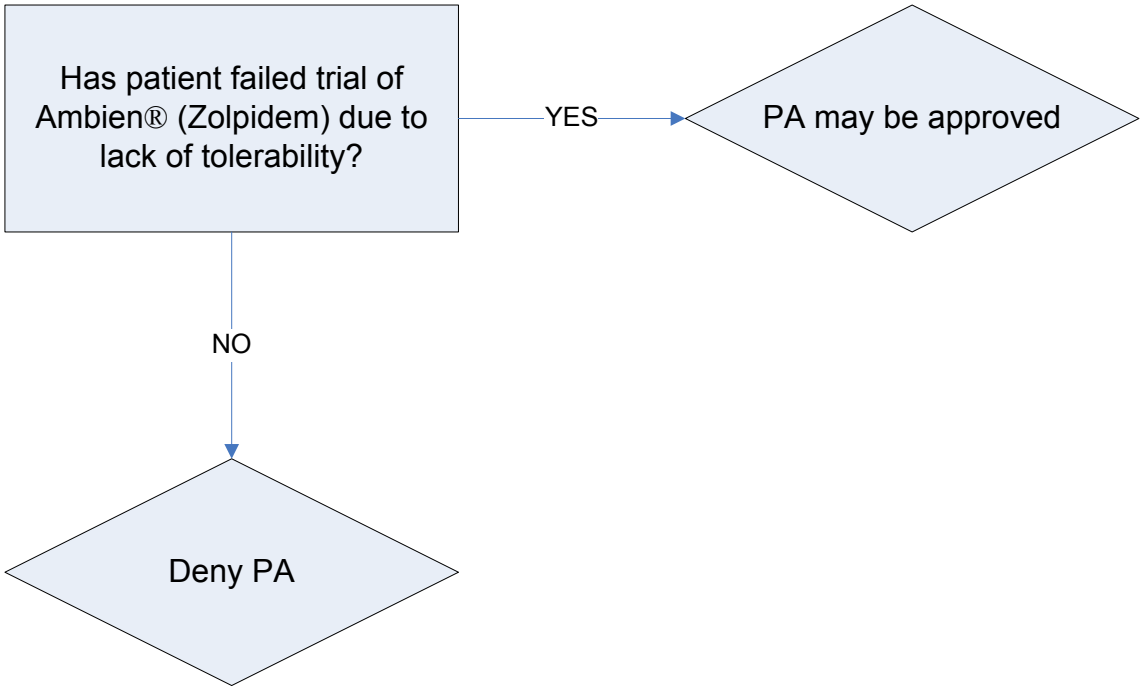
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
PHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Sedative/Hypnotic Authorization Algorithm



NORTH DAKOTA MEDICAID
Percentage Market Share Within Sub-Classes
Sedative/Hypnotics

	FEB 04	MAY 06	DEC 08
All Sedative/Hypnotics(No Subclass)			
AMBIEN	91.22	56.59	0.00
AMBIEN CR	0.00	17.51	8.12
LUNESTA	0.00	18.71	6.41
ROZEREM	0.00	4.80	2.14
SONATA	8.78	2.40	0.00
ZALEPLON	0.00	0.00	0.43
ZOLPIDEM TARTRATE	0.00	0.00	82.91

Class added to PDL Jun 2006

HEALTH INFORMATION DESIGNS

Qualaquin Form

Clear Fields

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

ND Medicaid will cover Qualaquin with a diagnosis of Malaria.

Part I: TO BE COMPLETED BY PHYSICIAN

RECIPIENT NAME:	RECIPIENT MEDICAID ID NUMBER:
Recipient Date of birth:	
PHYSICIAN NAME:	PHYSICIAN MEDICAID ID NUMBER:
Address:	Phone:
City:	FAX:
State: Zip:	

REQUESTED DRUG:	**Requested Dosage:** (must be completed)

Qualifications for coverage:

- ❑ Malaria

.

Physician Signature: Date:

Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:	ND MEDICAID PROVIDER NUMBER:
Phone:	FAX:
Drug:	NDC#:

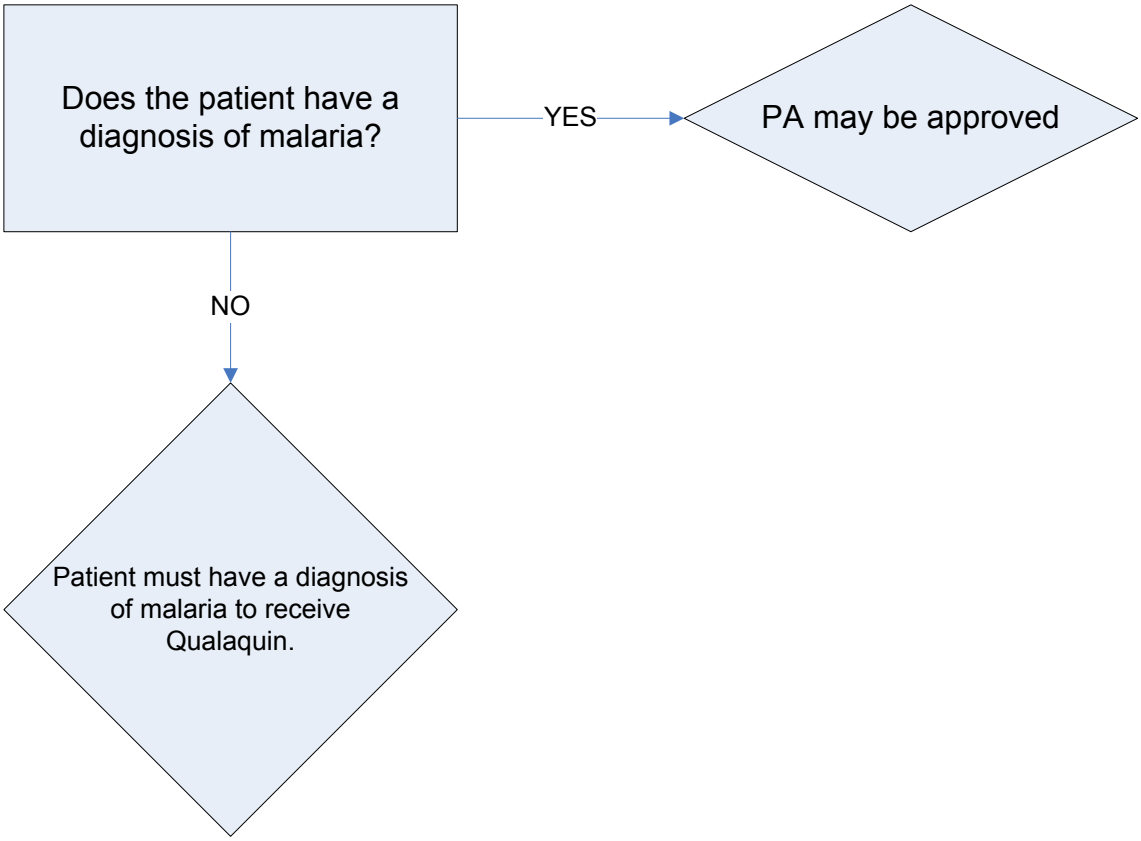
Part III: FOR OFFICIAL USE ONLY

Date: / / Initials: _____

Approved -
Effective dates of PA: From: / / To: / /

Denied: (Reasons)

North Dakota Department of Human Services
Qualaquin Criteria Algorithm



ACE-Inhibitors (ACE-I), Angiotensin II Receptor Blockers (ARB) and Renin Inhibitor PA Form

HEALTH INFORMATION DESIGNS

Fax Completed Form to: 866-254-0761
For questions regarding this Prior authorization, call 866-773-0695

Prior Authorization Vendor for ND

ND Medicaid requires that patients receiving a prescription for Aceon must use at least two generic ACE-Is as first line.
ND Medicaid requires that patients receiving an ARB or Renin Inhibitor must try and fail one ACE-I.
***Note:**

- **ACE-I: Captopril, enalapril, moexipril, ramipril, lisinopril, trandolapril, quinapril, benazepril, and fosinopril do not require a prior authorization.**
- **Angiotensin II receptor antagonists: Cozaar, Micardis, Teveten, Atacand, Diovan, Avalide, Benicar and their hydrochlorothiazide containing combinations.**
- **Renin Inhibitor: Tekturna and Tekturna HCT.**

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage:	**Diagnosis for this request:**		

Qualifications for coverage:

□ Failed ACE-I therapy (list two ACE-I to receive Aceon)	Start Date	End Date	Dose	Frequency

□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*

Physician Signature	Date

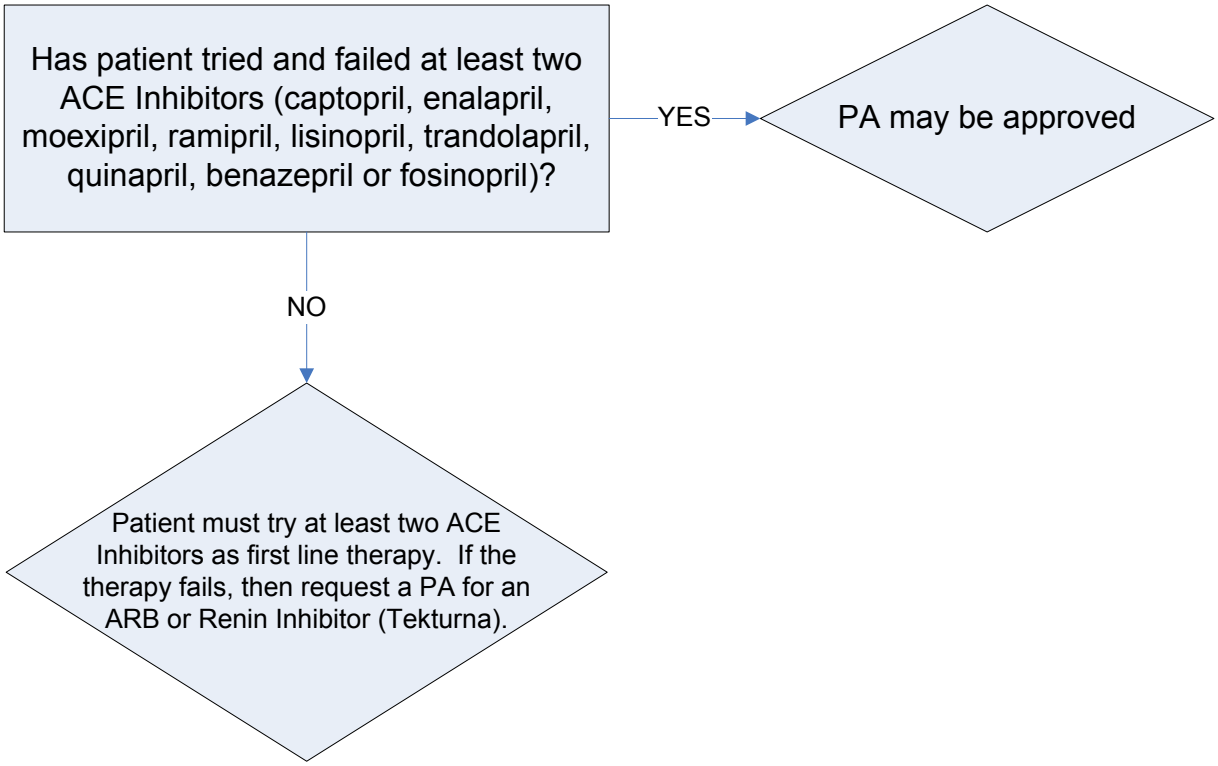
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
ACE-Is, ARBs and Renin Inhibitor (Tekturna) Authorization Criteria Algorithm



NORTH DAKOTA MEDICAID
Percentage Market Share Within Sub-Classes
ACE Inhibitors

	FEB 04	APR 05	DEC 08
All ACE Inhibitors(No Subclass)			
ACCUPRIL	8.39	0.46	0.00
ACCURETIC	0.33	0.11	0.00
ACEON	0.33	0.42	0.00
ALTACE	7.61	8.61	0.00
BENAZEPRIL HCL	0.29	5.27	2.56
BENAZEPRIL HCL-HCTZ	0.00	0.98	0.60
CAPOTEN	0.00	0.00	0.00
CAPOZIDE	0.00	0.00	0.00
CAPTOPRIL	1.99	1.62	1.51
CAPTOPRIL/HYDROCHLOROTHIAZIDE	0.00	0.00	0.00
ENALAPRIL MALEATE	18.87	18.24	9.94
ENALAPRIL MALEATE-HCTZ	0.81	0.74	0.00
ENALAPRIL MALEATE/HCTZ	0.00	0.00	0.00
FOSINOPRIL SODIUM	1.77	2.57	0.60
FOSINOPRIL-HYDROCHLOROTHIAZIDE	0.00	0.18	0.15
LEXXEL	0.00	0.04	0.00
LISINOPRIL	37.70	41.64	64.01
LISINOPRIL-HCTZ	3.64	4.43	8.89
LOTENSIN	5.22	0.04	0.00
LOTENSIN HCT	1.36	0.07	0.00
LOTREL	4.38	3.97	0.30
MAVIK	0.37	0.60	0.00
MOEXIPRIL HCL	2.83	0.14	0.90
MOEXIPRIL-HYDROCHLOROTHIAZIDE	0.00	0.00	0.45
MONOPRIL	1.58	0.07	0.00
MONOPRIL HCT	0.40	0.11	0.00
PRINIVIL	0.11	0.04	0.00
PRINZIDE	0.00	0.00	0.00
QUINAPRIL	0.00	0.00	0.00
QUINAPRIL HCL	0.00	5.83	5.27
QUINARETIC	0.00	0.18	0.00
RAMIPRIL	0.00	0.00	4.67
TARKA	0.15	0.25	0.00
TRANDOLAPRIL	0.00	0.00	0.00
UNIRETIC	1.58	1.30	0.15
UNIVASC	0.00	2.00	0.00
VASERETIC	0.00	0.00	0.00
VASOTEC	0.07	0.00	0.00
VASOTEC I.V.	0.00	0.00	0.00
ZESTORETIC	0.18	0.11	0.00
ZESTRIL	0.04	0.04	0.00

Class added to PDL May 2005

NORTH DAKOTA MEDICAID
Percentage Market Share Within Sub-Classes
ARBS

	FEB 04	AUG 05	DEC 08
All ARBS(No Subclass)			
ATACAND	12.11	12.05	4.31
ATACAND HCT	1.93	2.45	0.00
AVALIDE	1.68	2.04	0.86
AVAPRO	7.86	8.27	3.45
BENICAR	7.09	8.99	10.34
BENICAR HCT	1.16	4.19	6.03
COZAAR	26.80	24.51	24.14
DIOVAN	21.39	20.84	26.72
DIOVAN HCT	8.63	7.97	12.07
HYZAAR	9.66	5.82	4.31
MICARDIS	1.16	1.43	4.31
MICARDIS HCT	0.13	1.02	3.45
TEKTURNA	0.00	0.00	0.00
TEKTURNA HCT	0.00	0.00	0.00
TEVETEN	0.26	0.41	0.00
TEVETEN HCT	0.13	0.00	0.00

Class added to PDL Sep 2005

Synagis Utilization

NDC USAGE for Synagis from 08/01/08 to 02/24/09				
NDC Code	**Rx Num**	**Total Reimb Amt**	**Total Claim Cost**	**Label Name**
60574411301	124	$214,225.04	$246,571.99	SYNAGIS 100 MG/1 ML VIAL
60574411401	57	$51,045.21	$58,862.66	SYNAGIS 50 MG/0.5 ML VIAL
TOTAL	181	$265,270.25	$305,434.65	50 recipients

NDC USAGE for Synagis from 08/01/07 to 04/30/08				
NDC Code	**Rx Num**	**Total Reimb Amt**	**Total Claim Cost**	**Label Name**
60574411301	224	$377,751.10	$457,914.94	SYNAGIS 100 MG/1 ML VIAL
60574411401	127	$102,929.47	$125,911.44	SYNAGIS 50 MG/0.5 ML VIAL
TOTAL	351	$480,680.57	$583,826.38	76 recipient

NDC USAGE for Synagis from 08/01/06 to 04/30/07				
NDC Code	**Rx Num**	**Total Reimb Amt**	**Total Claim Cost**	**Label Name**
60574411301	295	$435,140.21	$537,324.47	SYNAGIS 100 MG/1 ML VIAL
60574411401	161	$115,087.68	$146,079.93	SYNAGIS 50 MG/0.5 ML VIAL
TOTAL	456	$550,227.89	$683,404.40	97 recipients

Growth Hormone PA Form

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

ND Medicaid requires that patients receiving Growth Hormone meet one of the criteria below:

- **Growth Hormone Deficiency in children and adults with a history of hypothalamic pituitary disease**
- **Short stature associated with chronic renal insufficiency before renal transplantation**
- **Short stature in patients with Turner Syndrome (TS) or Prader-Willi Syndrome (PWS)**
- **Human Immunodeficiency Virus (HIV) associated wasting in adults**

Part I: TO BE COMPLETED BY PHYSICIAN

RECIPIENT NAME:	RECIPIENT MEDICAID ID NUMBER:
Recipient Date of birth: / /	
PHYSICIAN NAME:	PHYSICIAN MEDICAID ID NUMBER:
Address:	Phone: ( )
City:	FAX: ( )
State: Zip:	
REQUESTED DRUG:	**Requested Dosage:** (must be completed)

Qualifications for coverage:

Criteria met:	Diagnosis Date: Drug:	Dose: Frequency:
Physician Signature:		Date:

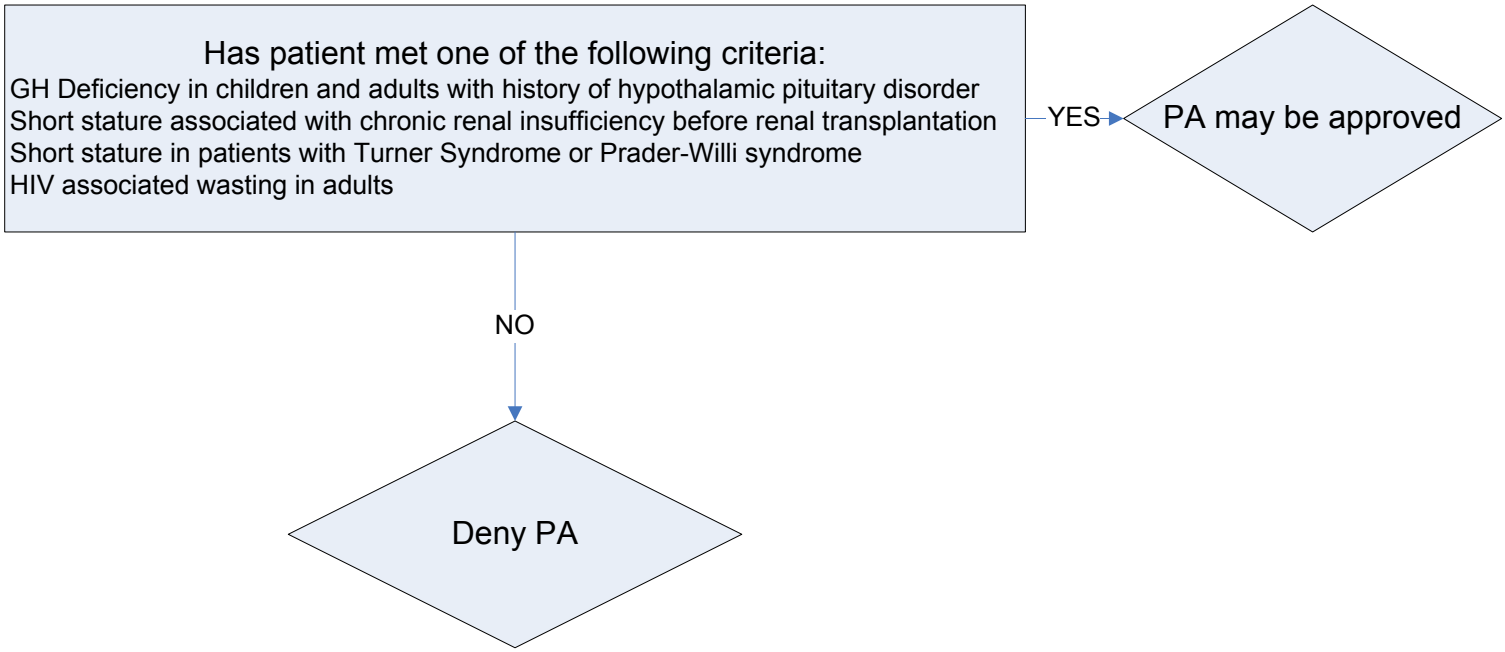
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:	ND MEDICAID PROVIDER NUMBER:
Phone:	FAX:
Drug:	NDC#:

Part III: FOR OFFICIAL USE ONLY

Date: / /		Initials: _____
Approved - Effective dates of PA:	From: / /	To: / /
Denied: (Reasons)		

North Dakota Department of Human Services
Growth Hormone Authorization Algorithm



Growth Hormone Utilization

02/01/08 – 01/31/09

Label Name	Rx Num	Total Reimb Amt
GENOTROPIN MINIQUICK 1 MG	1	$236.43
NUTROPIN AQ 20 MG/2ML PEN CART	1	$393.09
GENOTROPIN MINIQUICK 0.4 MG	6	$3,736.86
GENOTROPIN MINIQUICK 0.6 MG	9	$7,592.19
NORDITROPIN NORDIFLEX 5 MG/1.5	11	$11,157.96
GENOTROPIN 13.8 MG CARTRIDGE	3	$12,372.99
NORDITROPIN NORDIFLX 10 MG/1.5	10	$17,283.46
Total 6 recipients	**41**	**$52,772.98**

North Dakota Department of Human Services
Pharmacotherapy Review
Uloric®
June 1, 2009

I. Overview

Uloric (febuxostat) is a xanthine oxidase (XO) inhibitor indicated for the chronic management of hyperuricemia in patients with gout. Uloric is not recommended for the treatment of asymptomatic hyperuricemia.

II. Current Treatment Guidelines for Gout

National Institute for Health and Clinical Excellence: Febuxostat for the management of hyperuricemia in people with gout.

1. Febuxostat is recommended as an option for the management of chronic hyperuricemia in gout only for people who are intolerant of allopurinol or for whom allopurinol is contraindicated.
2. For the purpose of this guidance, intolerance of allopurinol is defined as adverse effects that are sufficiently severe to warrant its discontinuation, or to prevent full dose escalation for optimal effectiveness as appropriate.
3. People currently receiving febuxostat should have the option to continue therapy until they and their clinicians consider it appropriate to stop.

British Society for Rheumatology and British Health Professionals in Rheumatology: Guidelines for the management of gout.

1. Affected joints should be rested (C) and analgesic, anti-inflammatory drug therapy commenced immediately, and continued for 1-2 weeks (A).
2. Fast-acting oral non-steroidal anti-inflammatory drugs (NSAIDs) at maximum doses are the drugs of choice when there are no contraindications (A).
3. In patients with increased risk of peptic ulcers, bleeds or perforations, co-prescription of gastro-protective agents should follow standard guideline for the use of NSAIDs and Cox-IIs (A).
4. Colchicine can be an effective alternative but is slower to work than NSAIDs (A).
5. Allopurinol should not be commenced during an acute attack (B) but in patients already established on allopurinol, it should be continued and the acute attack should be treated conventionally (A).
6. Opiate analgesics can be used as adjuncts (C).
7. Corticosteroids can be effective in patients unable to tolerate NSAIDs, and in patients refractory to other treatments (A).
8. If diuretics are being used to treat hypertension, an alternative antihypertensive agent should be considered, but in patients with heart failure, diuretic therapy should not be discontinued (C).

III. Pharmacology

Febuxostat achieves its therapeutic effect by decreasing serum uric acid. Febuxostat is not expected to inhibit other enzymes involved in purine and pyrimidine synthesis and metabolism at therapeutic concentrations.

IV. Pharmacokinetics

Febuxostat has an apparent mean terminal elimination half-life ($t_{1/2}$) of approximately 5 to 8 hours. The absorption of febuxostat following oral dose administration was estimated to be at least 49%. Maximum plasma concentrations of febuxostat occurred between 1 to 1.5 hours post-dose. The mean apparent steady state volume of distribution of febuxostat was approximately 50L. The plasma protein binding is approximately 99.2% (primarily to albumin). Febuxostat is eliminated by both hepatic and renal pathways.

V. Warnings/Precautions

1. **Gout Flare** – After initiation of febuxostat, an increase in gout flares is frequently observed. This increase is due to reduction in serum uric acid levels resulting in mobilization of urate from tissue deposits. In order to prevent gout flares, concurrent prophylactic treatment with an NSAID or colchicine is recommended.

2. **Cardiovascular Events –** In the randomized controlled studies, there was a higher rate of cardiovascular thromboembolic events (cardiovascular deaths, non-fatal myocardial infarctions (MI), and non-fatal strokes) in patients treated with febuxostat. A causal relationship has not been established. Monitor for signs and symptoms of MI and stroke.

3. **Liver Enzyme Elevations –** During randomized controlled studies, transaminase elevations greater than 3 times the upper limit of normal were observed (AST: 2%, 2%, and ALT: 3%, 2% in febuxostat and allopurinol-treated patients, respectively). No dose-effect relationship for these transaminase elevations was noted. Laboratory assessment of liver function is recommended at, for example, 2 and 4 months following initiation of febuxostat and periodically thereafter.

VI. Drug Interactions

1. **Xanthine Oxidase (XO) Substrate Drugs-Azathioprine, Mercaptopurine, and Theophylline**: Febuxostat is an XO inhibitor. Drug interaction studies with drugs that are metabolized by XO have not been conducted. Inhibition of XO by febuxostat may cause increased plasma concentrations of these drugs leading to toxicity. Febuxostat is contraindicated in patients being treated with azathioprine, mercaptopurine, and theophylline.

2. **P450 Substrate Drugs**: Pharmacokinetic interactions between febuxostat and drugs metabolized by the CYP enzymes are unlikely.

3. **Colchicine**: No dose adjustment is necessary for either febuxostat or colchicine when the two drugs are co-administered.

4. **Naproxen**: No dose adjustment is necessary for febuxostat or naproxen when the two drugs are co-administered.

5. **Indomethacin**: No dose adjustment is necessary for febuxostat or indomethacin when these two drugs are co-administered.

6. **Hydrochlorothiazide:** No dose adjustment is necessary for febuxostat when co-administered with hydrochlorothiazide.

7. **Warfarin**: No dose adjustment is necessary for warfarin when co-administered with febuxostat.

8. **Desipramine**: Co-administration of drugs that are CYP2D6 substrates (such as desipramine) with febuxostat are not expected to require dosage adjustment.

VII. Adverse Reactions

In three randomized, controlled clinical studies which were 6 to 12 months in duration, the following adverse reactions were reported by the treating physician as related to the study drug.

Adverse reactions reported > 1% in febuxostat treatment groups and at least 0.5% greater than placebo				
	Placebo	Febuxostat		Allopurinol*
Adverse Reactions	N=134	40 mg daily N=757	80 mg daily N=1279	N=1277
Liver Function Abnormalities	0.7%	6.6%	4.6%	4.2%
Nausea	0.7%	1.1%	1.3%	0.8%
Arthralgia	0%	1.1%	0.7%	0.7%
Rash	0.7%	0.5%	1.6%	1.6%

*Of the subjects who received allopurinol, 10 received 100mg, 145 received 200mg, and 1,122 received 300mg, based on level of renal impairment.

VIII. Dosage and Administration

- The recommended starting dose of febuxostat is 40 mg once daily. For patients who do not achieve a serum uric acid (sUA) less than 6 mg per dL after 2 weeks with 40 mg, febuxostat 80 mg is recommended.
- Febuxostat can be administered without regard to food or antacid use.
- No dose adjustment is necessary when administering febuxostat to patients with mild to moderate renal or hepatic impairment.

VIII. Cost Comparisons

Cost of therapy differs significantly between febuxostat and allopurinol. Febuxostat 40 mg and 80 mg cost about $160.00 per month. Allopurinol, on the other hand, is available generically and costs under $16.00 for a month's supply of 300 mg tablets.

IX. Efficacy

Febuxostat has been compared to allopurinol in three studies. In the chart below, febuxostat 40 mg daily is comparable to allopurinol 300 mg daily. Febuxostat 80 mg daily is more effective than allopurinol 300 mg daily in reducing uric acid levels to goal <6 mg/dL. (While febuxostat 80 mg significantly lowers uric acid more than allopurinol in the studies below, it should be noted that these studies only used allopurinol doses up to 300 mg daily.)

Comparison of Uloric to Allopurinol Patients (%) with Serum Uric Acid Levels Less than 6 mg/dL at Final Visit						
Study	**Uloric 40 mg daily**	**Uloric 80 mg daily**	**Allopurinol 300 mg daily***	**Placebo**	**Percent difference (95% CI)**	
					Uloric 40 mg vs allopurinol	**Uloric 80 mg vs allopurinol**
Study #1 (6 months) (N=2268)	45%	67%	42%		3% (-2%-8%)	25% (20%-30%)
Study #2 (6 months) (N=643)		72%	39%	1%		33% (26%-42%)
Study #3 (12 months) (N=491)		74%	36%			38% (30%-46%)

* The majority of patients received allopurinol 300 mg daily in these trials. In study #1, 145 of 2,268 allopurinol subjects were dosed at 200 mg daily. In study #2, ten of 643 allopurinol subjects were dosed at 100 mg daily.

X. Conclusion

Guidelines suggest that allopurinol be tried first for most patients with gout. In the past, allopurinol has been underutilized by providers because of concerns about its adverse effects (GI intolerance, rash, rare but frequently fatal hypersensitivity syndrome), conservative renal dosage adjustment, and inadequate published randomized controlled trials of efficacy and safety of allopurinol above 300 mg daily. While the majority of prescribers only use allopurinol up to 300 mg daily, it is approved by the FDA for doses up to 800 mg per day (in divided doses). Consider Uloric for patients who don't tolerate or respond well to maximum doses of allopurinol.

References:

1. New drug: Uloric (febuxostat). Pharmacist's Letter/Prescriber's Letter 2009;25(4):250413
2. Uloric® [package insert]. Deerfield, IL: Takeda Pharmaceuticals America, Inc.; February 2009.
3. National Institute for Health and Clinical Excellence: Febuxostat for the management of hyperuricemia in people with gout. December, 2008. Accessed online at www.nice.org.uk, April, 2009.
4. Jordan K., Cameron J, et al. British Society for Rheumatology and British Health Professionals in Rheumatology: Guideline for the Management of Gout. Rheum 2007 46(8):1372-1374. Accessed online at www.rheumatology.oxfordjournals.org, April, 2009.

ULORIC PA FORM

Prior Authorization Vendor for ND Medicaid

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Uloric must try allopurinol as first line therapy.

- Allopurinol does not require a prior authorization.

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ ULORIC	**Diagnosis for this request:**		

Qualifications for coverage:

□ Failed allopurinol therapy Serum Urate Level: _____	Start Date	End Date	Dose	Frequency

□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*

Physician Signature	Date

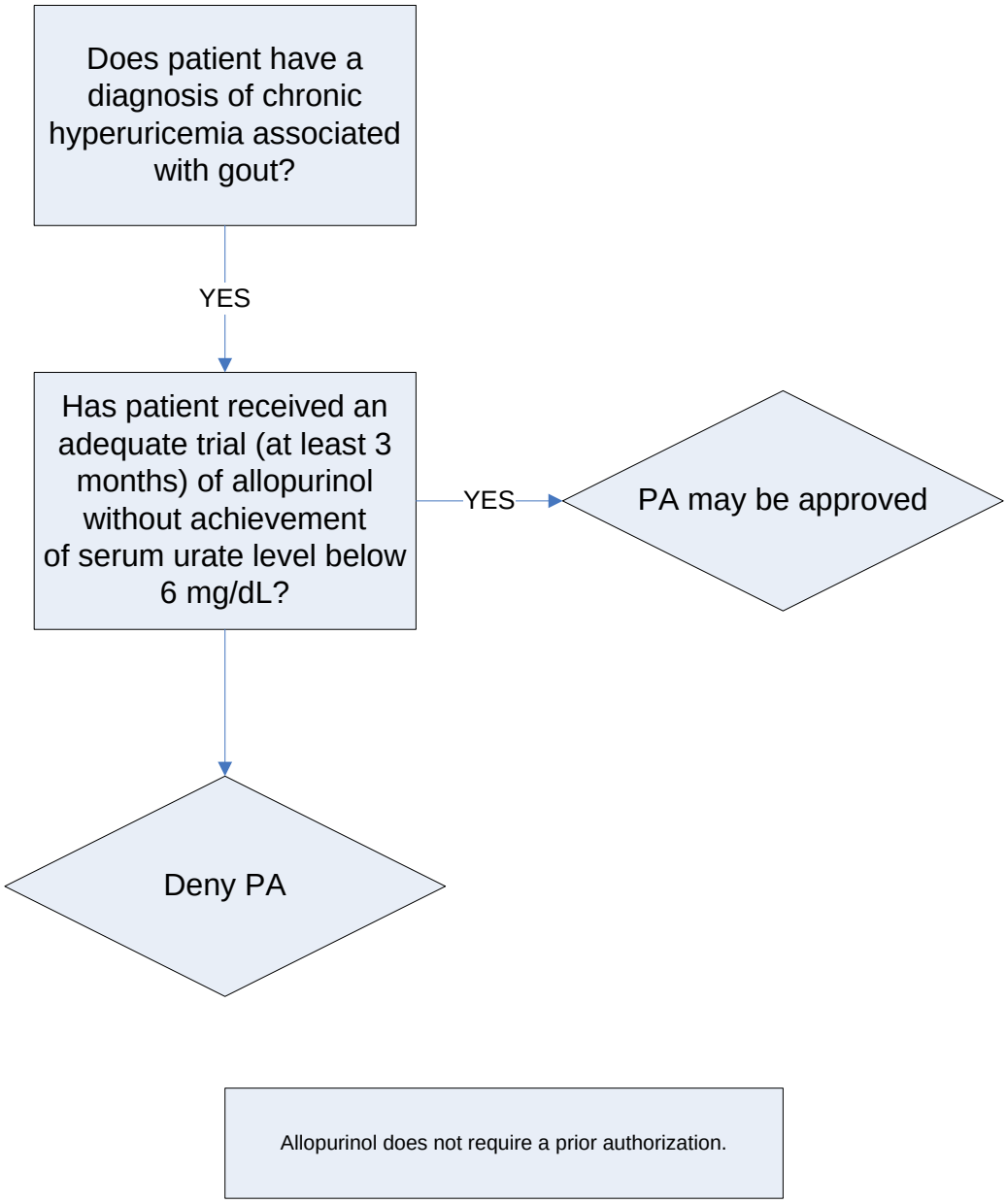
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Uloric Authorization Algorithm



North Dakota Department of Human Services
Pharmacotherapy Review
Moxatag®
June 1, 2009

I. Overview

Moxatag is a once-daily extended-release formulation of amoxicillin approved in January, 2008.

II. Indications and Usage

Moxatag is a penicillin-class antibacterial for the treatment of tonsillitis and/or pharyngitis secondary to *Streptococcus pyogenes* in adults and pediatric patients 12 years or older.

III. Pharmacology and Mechanism of Action

Amoxicillin is a semi-synthetic antimicrobial belonging to the penicillin-class of antimicrobials with activity against gram-positive bacteria. Amoxicillin exerts its bactericidal action against susceptible organisms during the stage of multiplication. It acts through the inhibition of biosynthesis of cell wall mucopeptide.

IV. Pharmacokinetics

Following the administration of Moxatag with a low-fat meal in healthy subjects, mean amoxicillin AUC, C_{max}, and T_{max} values were 29.8 ug-h/mL, 6.6 ug/mL and 3.1 hours, respectively. Amoxicillin is approximately 20% protein bound in human serum. Amoxicillin is primarily cleared by renal excretion. The half-life of amoxicillin after oral administration of Moxatag is approximately 1.5 hours, similar to that of immediate-release amoxicillin.

V. Warnings/Precautions

1. **Anaphylaxis and Hypersensitivity Reactions** – Serious and occasionally fatal hypersensitivity (anaphylactic) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy, it has occurred in patients on oral penicillins. These reactions are more likely to occur in individuals with a history of penicillin hypersensitivity and/or a history of sensitivity to multiple allergens. There have been reports of individuals with a history of penicillin hypersensitivity who have experienced severe reactions when treated with cephalosporins. Before initiating therapy with Moxatag, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, or other allergens. If an allergic reaction occurs, Moxatag should be discontinued and appropriate

therapy instituted. **Serious anaphylactic reactions require immediate emergency treatment with epinephrine. Oxygen, intravenous steroids, and airway management, including intubation, should also be administered as indicated.**

2. ***Clostridium difficile* Associated Diarrhea (CDAD)** – *Clostridium difficile* Associated Diarrhea has been reported with nearly all antibacterial agents, including amoxicillin, and may range in severity from mild diarrhea to fatal colitis. Treatment with antibacterial agents alters the normal flora of the colon leading to overgrowth of *C. difficile*. *C. difficile* produces toxins A and B which contribute to the development of CDAD. Hypertoxin producing strains of *C. difficile* cause increased morbidity and mortality, as these infections can be refractory to antimicrobial therapy and may require colectomy. CDAD must be considered in all patients who present with diarrhea following antibiotic use. Careful medical history is necessary since CDAD has been reported to occur over two months after the administration of antibacterial agents. If CDAD is suspected or confirmed, ongoing antibiotic use not directed against *C. difficile* may need to be discontinued. Appropriate fluid and electrolyte management, protein supplementation, antibiotic treatment of *C. difficile*, and surgical evaluation should be instituted as clinically indicated.

3. **Superinfections –** The possibility of super infections with mycotic or bacterial pathogens should be kept in mind during therapy. If superinfections occur, amoxicillin should be discontinued and appropriate therapy instituted.

4. **Mononucleosis Rash** – A high percentage of patients with mononucleosis who receive ampicillin develop an erythematous skin rash. Thus, ampicillin-class antibiotics should not be administered to patients with mononucleosis.

5. **Development of Drug-Resistant Bacteria** – Prescribing amoxicillin in the absence of proven or strongly suspected bacterial infection or treating prophylactically is unlikely to provide benefit to the patient and increases the risk of the development of drug-resistant bacteria.

6. **False-Positive Urinary Glucose Tests** – High urine concentrations of ampicillin may result in false-positive reactions when testing for the presence of glucose in urine using Clinitest®, Benedict's Solution, or Fehling's Solution. Since this effect may also occur with amoxicillin, it is recommended that glucose tests based on enzymatic glucose oxidase reactions (such as Clinistix®) be used

VI. Drug Interactions

1. **Probenecid** – Probenecid decreases the renal tubular secretion of amoxicillin. Concurrent use of Moxatag and probenecid may result in increased and

prolonged blood levels of amoxicillin. The clinical relevance of this finding has not been evaluated.

2. **Other Antibiotics** – Chloramphenicol, macrolides, sulfonamides, and tetracyclines may interfere with bactericidal effects of penicillin. This has been demonstrated in vitro; however, the clinical significance of this interaction is not well documented.

3. **Oral Contraceptives** – As with other antibiotics, amoxicillin may affect the gut flora, leading to lower estrogen reabsorption and potentially resulting in reduced efficacy of combined oral estrogen/progesterone contraceptives.

VII. Adverse Reactions

Drug-Related Treatment-Emergent Adverse Reactions by System Organ Class		
	Moxatag (N=302)	**Pen VK (N=306)**
Patients with at least one drug-related treatment-emergent adverse event	32 (10.6%)	45 (14.7%)
Infections and infestations		
Vulvovaginal mycotic infection	6 (2.0%)	8 (2.6%)
Gastrointestinal disorders		
Diarrhea	5 (1.7%)	6 (2.0%)
Nausea	4 (1.3%	2 (0.7%)
Vomiting	2 (0.7%)	5 (1.6%)
Abdominal pain	1 (0.3%)	3 (1.0%)
Nervous system disorders		
Headache	3 (1.0%)	3 (1.0%)

VIII. Dosage and Administration

The recommended dose of Moxatag is 775 mg once daily taken within 1 hour of finishing a meal for 10 days. The full 10 day course of therapy should be completed for effective treatment of tonsillitis and/or pharyngitis secondary to *S. pyogenes*. Do not chew or crush tablet.

VIII. Cost Comparisons

A course of Moxatag for treatment of strep throat will cost about $90, compared with $10 or less for a course of amoxicillin or penicillin.

IX. Efficacy

In a randomized, parallel-group, multi-center, double-blind, double-dummy study in adults and pediatrics (age ≥ 12 years) with tonsillitis and/or pharyngitis secondary to *S. pyogenes*, Moxatag 775 mg QD for 10 days was non-inferior to penicillin VK 250 mg QID for 10 days.

X. Conclusion

Effective treatments currently available for strep throat include penicillin, amoxicillin, cephalosporins, macrolides and clindamycin. Penicillin is the drug of choice because of proven efficacy, narrow spectrum and low cost. The efficacy of amoxicillin is similar to that of penicillin and is usually preferred for young children because the suspension has a better taste.

Some experts are concerned about giving amoxicillin (immediate- or extended-release) once daily for strep throat. This is because the blood levels of either formulation are less likely to remain above the minimum inhibitory concentration (MIC) of group A strep for the majority of the dosing interval (the amount of time blood levels are above MIC with Moxatag is about 4 hours longer than with immediate-release amoxicillin).

Because of expense and the lack of guidelines suggesting once daily amoxicillin as an option for first line therapy for strep throat, Moxatag represents a suitable second- or third-line therapy for those patients that are intolerant to the inactive ingredients in immediate release amoxicillin.

References:

1. Wolters Kluwer Health, Inc, ed. Drug Facts and Comparisons. St. Louis, MO. 2009
2. New formulation: Moxatag (amoxicillin extended release). Pharmacist's Letter/Prescriber's Letter 2009;25(2):250206.
3. Moxatag® [package insert]. Germantown, MD: Middlebrook Pharmaceuticals, Inc.; June 2008.

MOXATAG PA FORM

Prior Authorization Vendor for ND Medicaid

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Moxatag must submit documentation of allergies or show a history of intolerable side effects to the inactive ingredients in regular-release amoxicillin.

- Regular-release amoxicillin does not require a prior authorization.

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code

REQUESTED DRUG : □ MOXATAG	**Dosage**
Qualifications for coverage:	
□ Allergic/intolerable side effects to inactive ingredients of regular-release amoxicillin. Name of inactive ingredient: _____	Diagnosis for this request:
□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*	
Physician Signature	Date

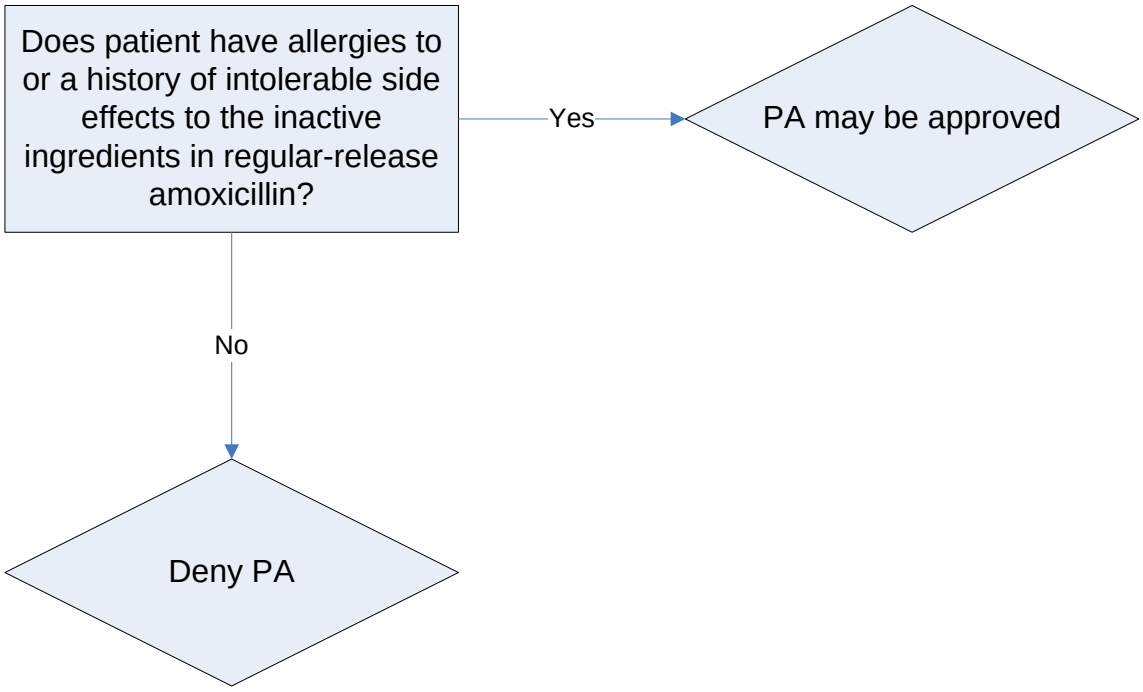
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Moxatag Authorization Algorithm



Regular-release amoxicillin does not require a prior authorization and costs approximately $4.40 for a course of therapy compared to $84.40 for a course of Moxatag therapy.

North Dakota Department of Human Services
Pharmacotherapy Review
Savella®
June 1, 2009

I. Overview

Savella (milnacipran) is a selective serotonin and norepinephrine reuptake inhibitor (SNRI) approved by the FDA on January 14, 2009 for the management of fibromyalgia in adults.

II. Fibromyalgia Treatment Guidelines

A. University of Texas, School of Nursing, Family Nurse Practitioner Program: Pharmacological Treatment Guideline for Fibromyalgia; 2005.

1. **Adequate sleep** – It is proposed that sleep disturbance occurs from a variety of reasons. Some of these reasons include serotonin metabolism in the central nervous system (CNS), resulting in low levels of brain serotonin, low levels of growth hormone secretion, and generalized body pain from the disease process. Tricyclic antidepressants (TCAs) help promote restorative sleep and heighten the effects of the body's natural pain-killing substances (endorphins), and increase non-rapid eye movement (non-REM) stage 4 sleep. Low levels of serotonin and norepinephrine are related to depression, muscle pain, and fatigue. Administering TCAs such as amitriptyline helps correct these deficiencies. Recommended dosing is as follows: Amitriptyline 25-50 mg 2 to 3 hours before bedtime, allowing peak sedative effect with minimal carry-over effect. May increase dosing to 50-75 mg over the next weeks if needed for added control. Cyclobenzaprine can be used as an alternative to amitriptyline because of its structural similarity to TCA compounds. The dosage is 10-30 mg at bedtime (QHS). Benzodiazepines are a second alternative, but should be used cautiously at bedtime due to their tendency to stabilize the erratic brain waves that interfere with restorative sleep in patients with fibromyalgia. (Millea & Holloway, 2000) (Level I, Recommendation A)

2. **Treat fatigue and depression** – If no response with TCAs, consider adding selective serotonin reuptake inhibitor (SSRI) in the morning. Dosing for fluoxetine is 20 mg every morning (QAM). This class of drugs works to block the re-uptake of serotonin, which in turn allows the body to utilize greater amounts of serotonin. The exact mechanism of action for fluoxetine in fibromyalgia syndrome is unknown. Since people with fibromyalgia already have decreased levels of serotonin; it is believed that fluoxetine increases the levels of serotonin to the brain. (Note: One research study completed in 2002 found there is a synergistic effect between fluoxetine and

amitriptyline due to the pharmacokinetic interaction between the 2 drugs. Using them together may be more effective for the patient's symptoms than using them alone.) (Arnold et al., 2002) (Level I, Recommendation A)

3. **Treat muscle spasms** – Cyclobenzaprine or low dose benzodiazepines (clonazepam) are used to treat muscle spasms. Cyclobenzaprine also modulates muscle tension at a supraspinal level. Dosing is 10-30 mg every day (QD) or, if greater dosing is needed, divide the doses, with the smaller dose in the morning and the larger dose in the evening (Tofferi, Jackson, & O'Malley, 2004). (Level I, Recommendation A)

4. **Adequate pain control** – The pain component of fibromyalgia is thought to be abnormal CNS processing of pain signals. It is thought that the pain is caused by a complex interaction between neurotransmitter release, external stressors, patient behavior, hormones, and the CNS system. Tramadol 50-100 mg every 4 to 6 hours is recommended for pain control. Non-steroidal anti-inflammatory agents are not recommended because fibromyalgia is not an anti-inflammatory process. Opioids are not recommended due to adverse side effects and regulatory concerns, and no increased benefit has been noted in research studies (Inanici & Yunus, 2002). (Level I, Recommendation A)

B. American Pain Society (APS): Guideline for the management of fibromyalgia syndrome pain (FMS) in adults and children; Pharmacological Therapies 2005.

1. For initial treatment of FMS, prescribe a tricyclic antidepressant for sleep, in particular 10 to 30 mg amitriptyline or cyclobenzaprine at bedtime. **(A)**

2. Use selective serotonin reuptake inhibitors (SSRIs) such as fluoxetine, alone or in combination with tricyclics, for pain relief. **(B)** The doses of all antidepressants should be individualized and any concurrent mood disturbances treated. **(Panel consensus)**

3. Do not use non-steroidal anti-inflammatory drugs (NSAIDs) as the primary pain medication for people with FMS. **(A)** There is no evidence that NSAIDs are effective when used alone to treat FMS patients. NSAIDs, including COX-2 selective agents and acetaminophen, may provide some analgesia when used with other medications. **(C)**

4. Use tramadol (50 to 100 mg two or three times daily) for pain relief in people with FMS. The dose of tramadol should be increased slowly over time and should be tapered gradually when discontinued. Tramadol can be used alone or in combination with acetaminophen. **(B)**

5. Use opioids for management of FMS pain only after all other pharmacologic and nonpharmacologic therapies have been exhausted. **(Panel consensus)**

6. Use sleep and anti-anxiety medications such as trazodone, benzodiazepines, nonbenzodiazepine sedatives, or L-dopa and carbidopa in FMS, especially if sleep disturbances such as restless leg syndrome are prominent. **(A)**

7. Do not use corticosteroids in the treatment of FMS unless there is concurrent joint, bursa, or tendon inflammation. **(A)**

8. Ask patients about their use of complementary products and practices and have sufficient knowledge of them to be able to answer questions concerning efficacy and identify possible negative interactions with prescribed treatment. **(C)**

III. Pharmacology and Mechanism of Action

The exact mechanism of the central pain inhibitory action of milnacipran and its ability to improve the symptoms of fibromyalgia in humans are unknown. Preclinical studies have shown that milnacipran is a potent inhibitor of neuronal norepinephrine and serotonin reuptake without directly affecting the uptake of dopamine or other neurotransmitters.

IV. Pharmacokinetics

Milnacipran is well absorbed after oral administration with an absolute bioavailability of approximately 85% to 90%. It is excreted predominantly unchanged in urine (55%) and has a terminal elimination half-life of about 6 to 8 hours. Steady-state levels are reached within 36-48 hours. Milnacipran is absorbed following oral administration with maximum concentrations reached within 2 to 4 hours. Absorption is not affected by food. The mean volume of distribution is approximately 400L. Plasma protein binding is 13%.

V. Warnings/Precautions

1. **Suicidality** – Monitor for worsening depressive symptoms and suicide risk.

2. **Serotonin Syndrome** – Serotonin syndrome has been reported with SNRIs and SSRIs. Concomitant use of serotonergic drugs is not recommended.

3. **Elevated blood pressure and heart rate** – Cases have been reported with milnacipran. Monitor blood pressure and heart rate prior to initiating treatment with milnacipran and periodically throughout treatment.

4. **Seizures** – Cases have been reported with milnacipran therapy. Prescribe milnacipran with care in patients with a history of seizure disorder.

5. **Hepatotoxicity** – More patients treated with milnacipran than with placebo experienced mild elevations of ALT and AST. Rarely, fulminant hepatitis has been reported. Avoid concomitant use of milnacipran with substantial alcohol use or chronic liver disease.

6. **Discontinuation** – Withdrawal symptoms have been reported in patients when discontinuing treatment. A gradual dose reduction is recommended.

7. **Abnormal Bleeding** – Milnacipran may increase the risk of bleeding events. Caution patients about the risk of bleeding associated with the concomitant use of milnacipran and NSAIDs, aspirin, or other drugs that affect coagulation.

8. Male patients with a history of obstructive uropathies may experience higher rates of genitourinary adverse events.

VI. Drug Interactions

1. **Lithium** – Serotonin syndrome may occur when lithium is co-administered with milnacipran and with other drugs that impair metabolism of serotonin.

2. **Epinephrine and norepinephrine** – Milnacipran inhibits the reuptake of norepinephrine. Concomitant use of milnacipran and epinephrine and norepinephrine may be associated with paroxysmal hypertension and possible arrhythmia.

3. **Serotonergic Drugs** – Co-administration of milnacipran with other inhibitors of serotonin re-uptake may result in hypertension and coronary artery vasoconstriction, through additive serotonergic effects.

4. **Digoxin** – Use of milnacipran concomitantly with digoxin may be associated with potentiation of adverse hemodynamic effects. Postural hypotension and tachycardia have been reported in combination therapy with intravenously administered digoxin. Co-administration should be avoided.

5. **Clonidine** – Because milnacipran inhibits norepinephrine reuptake, co-administration with clonidine may inhibit clonidine's anti-hypertensive effect.

6. **Clomipramine** – In a drug-drug interaction study, an increase in euphoria and postural hypotension was observed in patients who switched from clomipramine to milnacipran.

7. **CNS-active drugs** – Given the primary CNS effects of milnacipran, caution should be used when it is taken in combination with other centrally acting drugs, including those with a similar mechanism of action.

VII. Contraindications

1. **Monoamine Oxidase Inhibitors** – Concomitant use of milnacipran in patients taking monoamine oxidase inhibitors (MAOIs) is contraindicated. In patients receiving a serotonin reuptake inhibitor in combination with a MAOI, there have been reports of serious, sometimes fatal, reactions including hyperthermia, rigidity, myoclonus, autonomic instability with possible rapid fluctuations of vital signs, and mental status changes that include extreme agitation progressing to delirium and coma. Therefore, it is recommended that milnacipran should not be used in combination with an MAOI, or within 14 days of discontinuing treatment with an MAOI. Similarly, at least 5 days should be allowed after stopping milnacipran before starting an MAOI.

2. **Uncontrolled Narrow-Angle Glaucoma** – In clinical trials, milnacipran was associated with increased risk of mydriasis. Therefore, do not use milnacipran in patients with uncontrolled narrow-angle glaucoma.

VIII. Adverse Reactions

The most frequently occurring adverse reactions (≥ 5% and greater than placebo) were nausea, headache, constipation, dizziness, insomnia, hot flush, hyperhidrosis, vomiting, palpitations, heart rate increased, dry mouth, and hypertension.

IX. Dosage and Administration

- Administer milnacipran in two divided doses per day
- Begin dosing at 12.5 mg on the first day and increase to 100 mg/day over a 1-week period:
  Day 1: 12.5 mg once
  Day 2-3: 25 mg/day (12.5 mg twice daily)
  Day 4-7: 50 mg/day (25 mg twice daily)
  After Day 7: 100 mg/day (50 mg twice daily)
- Recommended dose is 100 mg/day
- May be increased to 200 mg/day based on individual patient response
- Dose should be adjusted in patients with severe renal impairment

X. Efficacy

The efficacy of milnacipran for the management of fibromyalgia was established in two double-blind, placebo-controlled, multicenter studies in adult patients (18-74 years of age). Patients enrolled in the studies all had a diagnosis of fibromyalgia based on the American College of Rheumatology (ACR) criteria. Approximately 35% of patients had a history of depression.

A larger proportion of patients treated with milnacipran than with placebo experienced a simultaneous reduction in pain from baseline of at least 30% and also rated

themselves as much improved or very much improved based on the patient global assessment. Analysis of the studies showed that there were more treatment responders among the less depressed patients than the more depressed patients.

There are no head-to-head trials comparing the efficacy of milnacipran to duloxetine or pregabalin in the treatment of fibromyalgia. All three appear to be modestly effective for the management of fibromyalgia based on their individual clinical trial data.

XI. Conclusion

Current guidelines recommend a low-dose tricyclic antidepressant, cyclobenzaprine, SSRI (alone or in combination with a low-dose tricyclic), and cognitive behavioral therapy as initial treatment for fibromyalgia. For additional management of pain and sleep disturbance, tramadol (alone or in combination with acetaminophen), and sleep medications might be beneficial. Use opioids only after all pharmacologic and nonpharmacologic options have been exhausted.

References:

1. Wolters Kluwer Health, Inc, ed. Drug Facts and Comparisons. St. Louis, MO. 2009
2. New drug: Savella (milnacipran). Pharmacist's Letter/Prescriber's Letter 2009;25(3):250310.
3. Savella® [package insert]. New York, NY: Forest Pharmaceuticals, Inc.; January 2009.
4. University of Texas, School of Nursing, Family Nurse Practitioner Program. Fibromyalgia treatment guideline. Austin (TX): University of Texas, School of Nursing; 2005 May.
5. Buckhardt CS, Goldenberg D, et al. Guideline for the management of fibromyalgia syndrome pain in adults and children. Glenview (IL): American Pain Society (APS); 2005.

SAVELLA PA FORM

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

ND Medicaid requires that patients receiving a new prescription for Savella must have a diagnosis of fibromyalgia

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ SAVELLA	**Diagnosis for this request:**		
□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*			
Physician Signature		Date	

Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Pharmacotherapy Review
Targeted Immune Modulators Review

I. Overview

Targeted immune modulators (TIMs) are used in the treatment of certain types of immunologic and inflammatory diseases, including ankylosing spondylitis (AS), Crohn's disease, juvenile idiopathic arthritis, plaque psoriasis, psoriatic arthritis (PsA), rheumatoid arthritis (RA), and ulcerative colitis (UC). The drugs work by selectively blocking steps in the inflammatory and immune cascades by either interfering with the activation of T cells, by targeting the inflammatory mediator TNF-α or by competitively blocking the Interleukin-1 (IL-1) receptor.

Table 1 summarizes the TIMs included in this review.

Table 1. Targeted Immune Modulators

Generic Name	Brand Name	Manufacturer
Abatacept	Orencia®	Bristol-Myers Squibb
Adalimumab	Humira®	Abbott
Alefacept	Amevive®	Astellas
Anakinra	Kineret®	Amgen
Certolizumab	Cimzia®	UCB
Efalizumab	Raptiva®*	Genentech
Etanercept	Enbrel®	Immunex
Infliximab	Remicade®	Centocor

* Genentech voluntarily withdrew Raptiva from the U.S. Market (April 8, 2009)

II. Pharmacology

TNF is a naturally occurring cytokine that is involved in normal anti-inflammatory and immune responses. Elevated levels of TNF are found in the synovial fluid of RA, including juvenile idiopathic arthritis, psoriatic arthritis, and ankylosing spondylitis patients and play an important role in the pathological inflammation and joint destruction that are hallmarks of these diseases. Increased levels of TNF are also found in psoriasis plaques.

TNF inhibitors block these specific proinflammatory mediators. Adalimumab, etanercept, certolizumab and infliximab target TNF-α. Adalimumab binds specifically to TNF-α, blocking its interaction with both the p55 and p75 cell surface TNF receptor. Etanercept binds circulating TNF-α and lymphotoxin-α preventing them from interacting with a cell surface receptor. Infliximab binds both circulating and transmembrane forms of TNF-α, thereby preventing binding with the receptor. Certolizumab binds to human TNF-α selectively neutralizing it.

IL-1, another naturally occurring cytokine, has both immune and pro-inflammatory actions. Anakinra competitively blocks the IL-1 receptor, thus blocking various inflammatory and immunological responses.

The immunosuppressant agents abatecept, alefacept and efalizumab produce their immune response by inhibiting T-cell activation. Abatecept suppresses inflammation, decreases anticollagen antibody production and reduces antigen-specific production of interferon-gamma. Treatment with alefacept results in a reduction in circulating total CD4+ and CD8+ T-lymphocyte counts. CD2 is also expressed at low levels on the surface of killer cells and certain bone marrow B lymphocytes. Efalizumab inhibits the binding of leukocyte function antigen-1 (LFA-1) to intercellular adhesion molecule-1 (ICAM-1), thereby inhibiting the adhesion of leukocytes to other cell types.

III. Indications

Table 2. FDA approved indications for the agents included in this review

Generic Name	FDA Approved Indications
Abatecept	• Moderately to severely active RA in adults. Orencia may be used as monotherapy or concomitantly with disease-modifying-antirheumatic drugs (DMARDs) other than TNF antagonists. • Moderately to severely active polyarticular juvenile idiopathic arthritis in pediatric patients 6 and older. Orencia may be used as monotherapy or concomitantly with MTX.
Adalimumab	• Reducing signs and symptoms, inducing major clinical response, inhibiting the progression of structural damage, and improving physical function in adult patients with moderately to severely active disease. Humira can be used alone or in combination with methotrexate or other DMARDs. • Reducing signs and symptoms of moderately to severely active polyarticular juvenile idiopathic arthritis in patients 4 years of age and older. Humira can be used alone or in combination with methotrexate. • Reducing signs and symptoms of active arthritis, inhibiting the progression of structural damage, and improving physical function in patients with psoriatic arthritis. Humira can be used alone or in combination with DMARDS. • Reducing signs and symptoms in patients with active ankylosing spondylitis. • Reducing signs and symptoms and inducing and maintaining clinical remission in adult patients with moderately to severely active Crohn's disease who have had an inadequate response to conventional therapy. Reducing signs and symptoms and inducing clinical remission in these patients if they have also lost response to or are intolerant to infliximab. • The treatment of adult patients with moderate to severe chronic plaque psoriasis who are candidates for systemic therapy or phototherapy, and when other systemic therapies are medically less appropriate. Humira should only be administered to patients who will be closely monitored and have regular follow-up visits with a physician.
Alefacept	• Treatment of adult patients with moderate to severe chronic plaque psoriasis who are candidates for systemic therapy or phototherapy.
Anakinra	• Reducing signs and symptoms and slowing the progression of structural damage in moderately to severely active rheumatoid arthritis, in patients 18 years of age or older who have failed 1 or more disease modifying antirheumatic drugs (DMARDs).
Certolizumab	• Reducing signs and symptoms of Crohn's disease and maintaining clinical response in adult patients with moderately to severely active disease who have had an inadequate response to conventional therapy.
Efalizumab	• Treatment of adult patients (18 years or older) with chronic moderate to severe plaque psoriasis who are candidates for systemic therapy or phototherapy.
Etanercept	• Reducing signs and symptoms, inducing major clinical response, inhibiting the progression of structural damage, and improving physical function in patients with moderately to severely active rheumatoid arthritis. Enbrel can be initiated in combination with methotrexate or used alone. • Reducing signs and symptoms of moderately to severely active polyarticular juvenile idiopathic arthritis in patients ages 2 and older. • Reducing signs and symptoms, inhibiting the progression of structural damage of active arthritis, and improving physical function in patients with psoriatic arthritis. Enbrel can be used in combination with methotrexate in patients who do not respond adequately to methotrexate alone. • Reducing signs and symptoms in patients with active ankylosing spondylitis. • Treatment of adult patients (18 years or older) with chronic moderate to severe plaque psoriasis who are candidates for systemic therapy or phototherapy.
Infliximab	• In combination with methotrexate for reducing signs and symptoms, inhibiting the progression of structural damage, and improving physical function in patients with moderately to severely active rheumatoid arthritis. • Reducing signs and symptoms and inducing and maintaining clinical remission in adult and pediatric patients with moderately to severely active Crohn's disease who have had an inadequate

Generic Name	FDA Approved Indications
	response to conventional therapy. • Reducing the number of draining enterocutaneous and rectovaginal fistulas and maintaining fistula closure in adult patients with fistulizing Crohn's disease. • Reducing signs and symptoms in patients with active ankylosing spondylitis. • Reducing signs and symptoms of active arthritis, inhibiting the progression of structural damage, and improving physical function in patients with psoriatic arthritis. • Treatment of adult patients with chronic severe (i.e., extensive and/or disabling) plaque psoriasis who are candidates for systemic therapy and when other systemic therapies are medically less appropriate. • Reducing signs and symptoms, inducing and maintaining clinical remission and mucosal healing, and eliminating corticosteroid use in patients with moderately to severely active ulcerative colitis who have had an inadequate response to conventional therapy.

IV. Dosing and Administration

Table 3. Dosing recommendations for the agents included in this review

Drug	Dosing and Administration	Availability
Abatacept	• <60 kg 500 mg • 60 – 100 kg 750 mg • >100 kg 1,000 mg • Pediatric patients weighing less than 75 kg receive 10 mg/kg. • Administer as a 30-minute intravenous infusion. • Following initial dose, give at 2 and 4 weeks, then every 4 weeks.	• 250 mg single-use vial
Adalimumab	• RA, PsA, AS – 40 mg every other week. Methotrexate, glucocorticoids, salicylates, nonsteroidal anti-inflammatory drugs (NSAIDSs), analgesics or other DMARDs may be continued during treatment. Some patients with RA not receiving methotrexate may benefit from increasing the frequency to 40 mg every week. • Juvenile idiopathic arthritis – Patients 4 to 17 years of age - 15 kg to < 30 kg: 20 mg every other week. ≥ 30 kg: 40 mg every other week. Methotrexate, glucocorticoids, salicylates, NSAIDs, analgesics or other DMARDs may be continued during treatment. • Crohn's Disease – Initial dose is 160 mg (four 40 mg injections in one day or two 40 mg injections per day for two consecutive days), followed by 80 mg two weeks later (Day 15). Two weeks later (Day 29) begin a maintenance dose of 40 mg every other week. Aminosalicylates, corticosteroids, and/or immunomodulatory agents (e.g., 6-mercaptopurine and azathioprine) may be continued during treatment.	• 40 mg/0.8 ml in a single-use prefilled pen • 40 mg/0.8 ml in a single-dose prefilled glass syringe • 20 mg/0.4 ml in a single-dose prefilled glass syringe

Drug	Dosing and Administration	Availability
	• Plaque psoriasis – 80 mg initial dose followed by 40 mg every other week starting one week after initial dose.	
Alefacept	• 7.5 mg given once weekly as an IV bolus or 15 mg given once weekly as an IM injection. • Recommended regimen is a course of 12 weekly injections. • Retreatment with an additional 12-week course may be initiated provided that CD4+ T lymphocyte counts are within the normal range, and a minimum of a 12-week interval has passed since the previous course of treatment.	• 7.5 mg single-use vial for IV administration • 15 mg single-use vial for IM administration
Anakinra	• Recommended dose for the treatment of patients with rheumatoid arthritis is 100mg/day administered by subcutaneous injection. Higher doses did not result in a higher response. • Dose should be administered at approximately the same time every day. • Consider a dose of 100mg every other day for RA patients who have severe renal insufficiency or end stage renal disease.	• Single-use preservative free, prefilled glass syringes containing 100mg of anakinra.
Certolizumab	• 400 mg subcutaneously initially and at weeks 2 and 4. • If response occurs, follow with 400 mg subcutaneously every four weeks.	• Two single-use glass vials each containing 200 mg of lyophilized Cimzia for reconstitution.
Efalizumab	• Single 0.7 mg/kg subcutaneously conditioning dose followed by weekly subcutaneous doses of 1 mg/kg not to exceed 200mg.	• Single-use vial designed to deliver 125 mg of efalizumab.
Etanercept	• A 50 mg dose should be given as one subcutaneous injection using either a 50 mg single-use prefilled syringe or a single-use prefilled SureClick autoinjector. • A 50 mg dose can also be given as two 25 mg subcutaneous injections using 25 mg single-use prefilled syringes or multiple-use vials. • When administering Enbrel as two injections in adults or children, the injections should be given either on the same day or 3 or 4 days apart. • Adult RA, AS, and PsA – 50 mg per week. Methotrexate, glucocorticoids, salicylates, nonsteroidal anti-inflammatory drugs (NSAIDs), or analgesics may be continued during treatment with Enbrel. • Adult plaque psoriasis – 50 mg dose given twice weekly (administered 3 or 4 days apart) for 3 months followed by a reduction to a maintenance dose of 50 mg	• 25 mg single-use prefilled syringe • 50 mg single-use prefilled syringe • 50 mg single-use prefilled SureClick autoinjector • 25 mg multiple-use vial

Drug	Dosing and Administration	Availability
	per week. • Juvenile idiopathic arthritis – pediatric patients ages 2 to 17 years is 0.8 mg/kg per week (max of 50 mg per week). Glucocorticoids, nonsteroidal anti-inflammatory drugs (NSAIDs), or analgesics may be continued during treatment with Enbrel. Concurrent use with methotrexate and higher doses of Enbrel have not been studied in pediatric patients.	
Infliximab	• RA - 3 mg/kg given as an intravenous infusion followed with additional similar doses at 2 and 6 weeks after the first infusion then every 8 weeks thereafter. • Crohn's Disease (adults) – 5mg/kg given as an intravenous induction regimen at 0, 2 and 6 weeks followed by a maintenance regimen of 5 mg/kg every 8 weeks thereafter. For adult patients who respond and then lose their response, consideration may be given to treatment with 10 mg/kg. Patients who do not respond by week 14 are unlikely to respond with continued dosing and consideration should be given to discontinuation. • Crohn's Disease (children) - The recommended dose is 5 mg/kg given as an intravenous induction regimen at 0, 2 and 6 weeks followed by a maintenance regimen of 5 mg/kg every 8 weeks. • AS , PsA– 5mg/kg given as an intravenous infusion followed with additional similar doses at 2 and 6 weeks after the first infusion, then every 6 weeks thereafter. • UC – 5 mg/kg given as an induction regimen at 0, 2 and 6 weeks followed by a maintenance regimen of 5 mg/kg every 8 weeks thereafter.	• 100mg single-use vials

V. Pharmacokinetics

Table 4. Pharmacokinetics of the agents included in this review

Drug	C_{max} (mcg/ml)	t ½	Onset of action	Systemic clearance	Volume of distribution
Abatacept	171 - 398	8 – 25 days	> 12 days	0.13 - 0.47 ml/h/kg	0.02 - 0.13 (L/kg)
Adalimumab	4.7 ± 1.6	10 – 20 days	1 – 14 days	12 ml/h	4.7 – 6 L
Alefacept	1.4	11 – 12 days	30 – 60 days	0.25 ml/h/kg	94 ml/kg
Anakinra	3.1 – 29	7 - 8 hours	7 – 21 days	137 ± 21 ml/min	3.6 – 15 L
Certolizumab	0.5 – 90	14 days	8 weeks	17 ml/h	6.4 L
Efalizumab	9 - 12	6.2 days	14 days	24 ± 18 ml/kg/day	58 ml/kg (10mg/kg dose)
Etanercept	4.7 ± 1.6	10 – 20 days	1 – 28 days	12 ml/hr	4.7 – 6.0 L
Infliximab	118	7.7 – 9.5 days	2 – 14 days	0.012 – 0.032 L/h	3 L

VI. Drug Interactions

Abatacept (Orencia)

- Concurrent administration of a TNF antagonist with Orencia has been associated with an increased risk of serious infections and no significant additional efficacy over use of the TNF antagonists alone.
- There is insufficient experience to assess the safety and efficacy of Orencia administered concurrently with other biologic RA therapy and therefore such use is not recommended.
- Parenteral drug products containing maltose can interfere with the readings of blood glucose monitors that use test strips with glucose dehydrogenase pyrroloquinolinequinone (GDH-PQQ) resulting in falsely elevated blood glucose readings on the day of infusion. Patients should be advised to consider methods of glucose monitoring that do not react with maltose.

Adalimumab (Humira)

- Concurrent administration of anakinra (an interleukin-1 antagonist) and another TNF-blocking agent has been associated with a risk of serious infections, an increased risk of neutropenia and no additional benefit compared to these medicinal products alone. Therefore, the combination of anakinra with other TNF-blocking agents, including Humira, may also result in similar toxicities.
- Live vaccines should not be given concurrently with Humira.
- Humira has been studied in RA patients taking concomitant methotrexate. Although methotrexate reduced the apparent Humira clearance, the data do not suggest the need for dose adjustment of either Humira or methotrexate.

Alefacept (Amevive) – no formal drug interaction studies have been performed.

Anakinra (Kineret)

- No drug-drug interaction studies in human subjects have been conducted.
- Toxicologic and toxicokinetic studies in rats did not demonstrate any alteration in the clearance or toxicologic profile of either methotrexate or Kineret when the two agents were administered together.
- In a study in which patients with active RA were treated for up to 24 weeks with concurrent Kineret and etanercept therapy, a 7% rate of serious infections was observed, which was higher than that observed with etanercept alone.
- Two percent of patients treated concurrently with Kineret and etanercept developed neutropenia.

Certolizumab (Cimzia)

- Concurrent administration of anakinra and another TNF blocker has shown an increased risk of serious infections, an increased risk of neutropenia, and no added benefit compared to these medicinal products alone. Therefore, the combination of anakinra with other TNF blockers, including Cimzia, may also result in similar toxicities.
- Do not give live (including attenuated) vaccines concurrently with Cimzia.
- Interference with certain coagulation assays has been detected in patients treated with Cimzia. Cimzia may cause erroneously elevated aPTT assay results in patients without coagulation abnormalities. This effect has been observed with the PTT-LA test from Diagnostica Stago, and the HemosIL APTT-SP liquid and HemosIL lyophilized silica tests from Instrumentation Laboratories. Other aPTT assays may be affected as well. Interference with thrombin time (TT) and prothrombin time (PT) assays have not been observed. There is no evidence that Cimzia therapy has an effect on *in vivo* coagulation.

Efalizumab (Raptiva)

- No formal drug interaction studies have been performed with Raptiva. Raptiva should not be used with other immunosuppressive drugs.
- Live (including live-attenuated) vaccines should not be administered during Raptiva treatment.
- Increases in lymphocyte counts related to the pharmacologic mechanism of action are frequently observed during Raptiva treatment.

Etanercept (Enbrel)

- Specific drug interaction studies have not been conducted with Enbrel. However, it was observed that the pharmacokinetics of Enbrel was unaltered by concomitant methotrexate in rheumatoid arthritis patients.
- In a study in which patients with active RA were treated for up to 24 weeks with concurrent Enbrel and anakinra therapy, a 7% rate of serious infections was observed, which was higher than that observed with Enbrel alone. Two percent of patients treated concurrently with Enbrel and anakinra developed neutropenia.
- Two percent of patients treated with Enbrel and anakinra concurrently developed neutropenia.
- In a study of patients with Wegener's granulomatosis, the addition of Enbrel to standard therapy (including cyclophosphamide) was associated with a higher incidence of non-cutaneous solid malignancies. The use of Enbrel in patients receiving concurrent cyclophosphamide therapy is not recommended.
- Patients in a clinical study who were on established therapy with sulfasalazine, to which Enbrel was added, were noted to develop a mild decrease in mean neutrophil counts in comparison to groups treated with either Enbrel or sulfasalazine alone.

Infliximab (Remicade)

- Concurrent administration of etanercept (another TNFα-blocking agent) and anakinra (an interleukin-1 receptor antagonist) has been associated with an increased risk of serious infections and increased risk of neutropenia and no additional benefit compared to these medicinal products alone. Other TNFα-blocking agents (including Remicade) used in combination with anakinra may also result in similar toxicities.
- Specific drug interaction studies, including interactions with methotrexate, have not been conducted.

VII. Adverse Events

Table 5. Adverse Events > 2% for the agents included in this review

Adverse Event	Abatacept n=1,955 %	Adalimumab n=705 %	Alefacept n=1,869 %	Anakinra n=1,565 %	Certolizumab n=620 %	Efalizumab n=1,213 %	Etanercept n=349 %	Infliximab n=1,129 %
↓ CD4+ T lymphocyte counts below normal	-	-	48	-	-	-	-	-
↓ CD8+ T lymphocyte counts below normal	-	-	59	-	-	-	-	-
↓ Lymphocytes below normal	-	-	22	-	-	-	-	-
Abdominal pain	-	7	-	5	-	-	5	12
Accidental injury	-	10	-	-	-	-	-	-
Acne	-	-	-	-	-	4	-	-
Alkaline phosphatase ↑	-	5	-	-	-	-	-	-
Arthralgia	-	-	-	6	6	-	-	8
Asthenia	-	-	-	-	-	-	5	-
Back pain	7	6	-	-	-	4	-	8
Bronchitis	-	-	-	-	-	-	-	10
Chills	-	-	-	-	-	13	-	-
Cough	8	-	-	-	-	-	6	12
Diarrhea	-	-	-	7	-	-	-	12
Dizziness	9	-	-	-	-	-	7	-

Adverse Event	Abatacept n=1,955 %	Adalimumab n=705 %	Alefacept n=1,869 %	Anakinra n=1,565 %	Certolizumab n=620 %	Efalizumab n=1,213 %	Etanercept n=349 %	Infliximab n=1,129 %
Dyspepsia	6	-	-	-	-	-	4	10
Fatigue	-	-	-	-	-	-	-	9
Fever	-	-	-	-	-	7	-	7
Flu syndrome	-	7	-	6	-	7	-	-
Headache	18	12	-	12	-	32	17	18
Hematuria	-	5	-	-	-	-	-	-
Hyper-cholesterolemia	-	6	-	-	-	-	-	-
Hyperlipidemia	-	7	-	-	-	-	-	-
Hypertension	7	5	-	-	-	-	-	7
Injection site pain	-	12	-	-	-	-	-	-
Injection site reaction	-	8	16	71	-	-	37	-
Lab test abnormal	-	8	-	-	-	-	-	-
Low-titer antibodies	-	5	3	-	4	-	-	-
Moniliasis	-	-	-	-	-	-	-	5
Mouth Ulcer	-	-	-	-	-	-	2	-
Myalgia	-	-	-	-	-	8	-	-
Nasopharyngitis	12	-	-	-	-	-	-	-
Nausea	-	9	-	8	-	11	9	21
Pain	3	-	-	-	-	10	-	8
Pharyngitis	-	-	-	-	-	-	7	12
Pruritus	-	-	-	-	-	-	-	7
Rash	4	12	-	-	-	-	5	10
Respiratory disorder	-	-	-	-	-	-	5	-
Rhinitis	-	-	-	-	-	-	12	8
Serious infection (bacterial, viral, pneumonia, and pyelonephritis)	-	-	-	-	3	29	35	-
Sinusitis	-	11	-	7	-	-	3	14
URI	-	17	-	14	20	-	29	32
UTI	6	8	-	-	7	-	-	8
Vomiting	-	-	-	-	-	-	3	-
Worsening of RA	-	-	-	19	-	-	-	-

VIII. Black Box Warnings

Adalimumab (Humira)

- Increased risk of serious infections leading to hospitalization or death, including tuberculosis (TB), bacterial sepsis, invasive fungal infections (such as histoplasmosis), and infection due to other opportunistic pathogens.
- Humira should be discontinued if a patient develops a serious infection or sepsis during treatment.
- Perform test for latent TB; if positive, start treatment for TB prior to starting Humira.

- Monitor all patients for active TB during treatment, even if initial latent TB test is negative.

Certolizumab (Cimzia)

- Increased risk of serious infections leading to hospitalization or death including tuberculosis (TB), bacterial sepsis, invasive fungal infections (such as histoplasmosis), and infections due to other opportunistic pathogens.
- Cimzia should be discontinued if a patient develops a serious infection or sepsis.
- Perform test for latent TB; if positive, start treatment for TB prior to starting Cimzia.
- Monitor all patients for active TB during treatment, even if initial latent TB test is negative.

Efalizumab (Raptiva)-voluntary U.S. market withdrawal began April 8, 2009

- Infections, including serious infections leading to hospitalizations or death, have been observed in patients treated with Raptiva. These infections have included bacterial sepsis, viral meningitis, invasive fungal disease and other opportunistic infections. Patients should be educated about the symptoms of infection and be closely monitored for signs and symptoms of infection during and after treatment with Raptiva. If a patient develops a serious infection, Raptiva should be discontinued and appropriate therapy instituted.
- Raptiva increases the risk for Progressive Multifocal Leukoencephalopathy (PML), a rapidly progressive viral infection of the central nervous system that has no known treatment and that leads to death or severe disability. The risk of PML may markedly increase with longer duration of Raptiva exposure. The time dependent threshold when the risk for PML increases is unknown. Patients on Raptiva should be monitored frequently to ensure they are receiving significant clinical benefit, to ensure they understand the significance of the risk of PML, and for any sign or symptom that may be suggestive of PML. Raptiva dosing should be withheld immediately at the first sign or symptom suggestive of PML. For diagnosis, brain magnetic resonance imaging (MRI) and, when indicated, cerebrospinal fluid analysis for JC viral DNA are recommended.

Etanercept (Enbrel)

- Patients treated with Enbrel are at increased risk for developing serious infections that may lead to hospitalization or death.
- Most patients who developed these infections were taking concomitant immunosuppresants such as methotrexate or corticosteroids.
- Enbrel should be discontinued if a patient develops a serious infection or sepsis.
- Reported infections include: active TB, including reactivation of latent TB. Patients with tuberculosis have frequently presented with disseminated or extra pulmonary disease. Patients should be tested for latent TB before Enbrel use and during therapy. Treatment for latent infection should be initiated prior to Enbrel use.
- Invasive fungal infections, including histoplasmosis, coccidioidomycosis, candidiasis, aspergillosis, blastomycosis, and pneumocystosis. Patients with histoplasmosis or other invasive fungal infections may present with disseminated, rather than localized, disease. Antigen and antibody testing for histoplasmosis may be negative in some patients with active infection. Empiric anti-fungal therapy should be considered in patients at risk for invasive fungal infections who develop severe systemic illness.
- Bacterial, viral and other infections due to opportunistic pathogens.
- The risks and benefits of treatment with Enbrel should be carefully considered prior to initiating therapy in patients with chronic or recurrent infection.
- Patients should be closely monitored for the development of signs and symptoms of infection during and after treatment with Enbrel, including the possible development of TB in patients who tested negative for latent TB infection prior to initiating therapy.

Infliximab (Remicade)

- Patients treated with Remicade are at increased risk for developing serious infections that may lead to hospitalization or death.
- Most patients who developed these infections were taking concomitant immunosuppresants such as methotrexate or corticosteroids.
- Remicade should be discontinued if a patient develops a serious infection or sepsis.
- Reported infections include: active TB, including reactivation of latent TB; invasive fungal infections, including histoplasmosis, coccidioidomycosis, candidiasis, aspergillosis, blastomycosis, and pneumocystosis; bacterial, viral and other infections due to opportunistic pathogens.
- Rare postmarketing cases of hepatosplenic T-cell lymphoma have been reported in adolescent and young adult patients with Crohn's disease on concomitant treatment with azathioprine or 6-mercaptopurine. This rare type of T-cell lymphoma has a very aggressive disease course and is usually fatal.

References

1. Wolters Kluwer Health, Inc, ed. Drugs Facts & Comparisons. St. Louis, MO. 2008.
2. Evidence-based Practice Center; Drug Class Review on Targeted Immune Modulators; Final Report January 2007. Accessed online February 2009 www.ohsu.edu.
3. Remicade® Prescribing Information, December 2008, Centocor, Inc.
4. Cimzia® Prescribing Information, December 2008, UCB, Inc.
5. Amevive® Prescribing Information, October 2006, Astellas Pharma US, Inc.
6. Humira® Prescribing Information, March 2009, Abbott Laboratories.
7. Enbrel® Prescribing Information, April 2009, Immunex Corporation.
8. Kineret® Prescribing Information, October 2002, Amgen.
9. Orencia® Prescribing Information, April 2008, Bristol-Myers Squibb.
10. Raptiva® Prescribing Information, March 2009, Genentech.

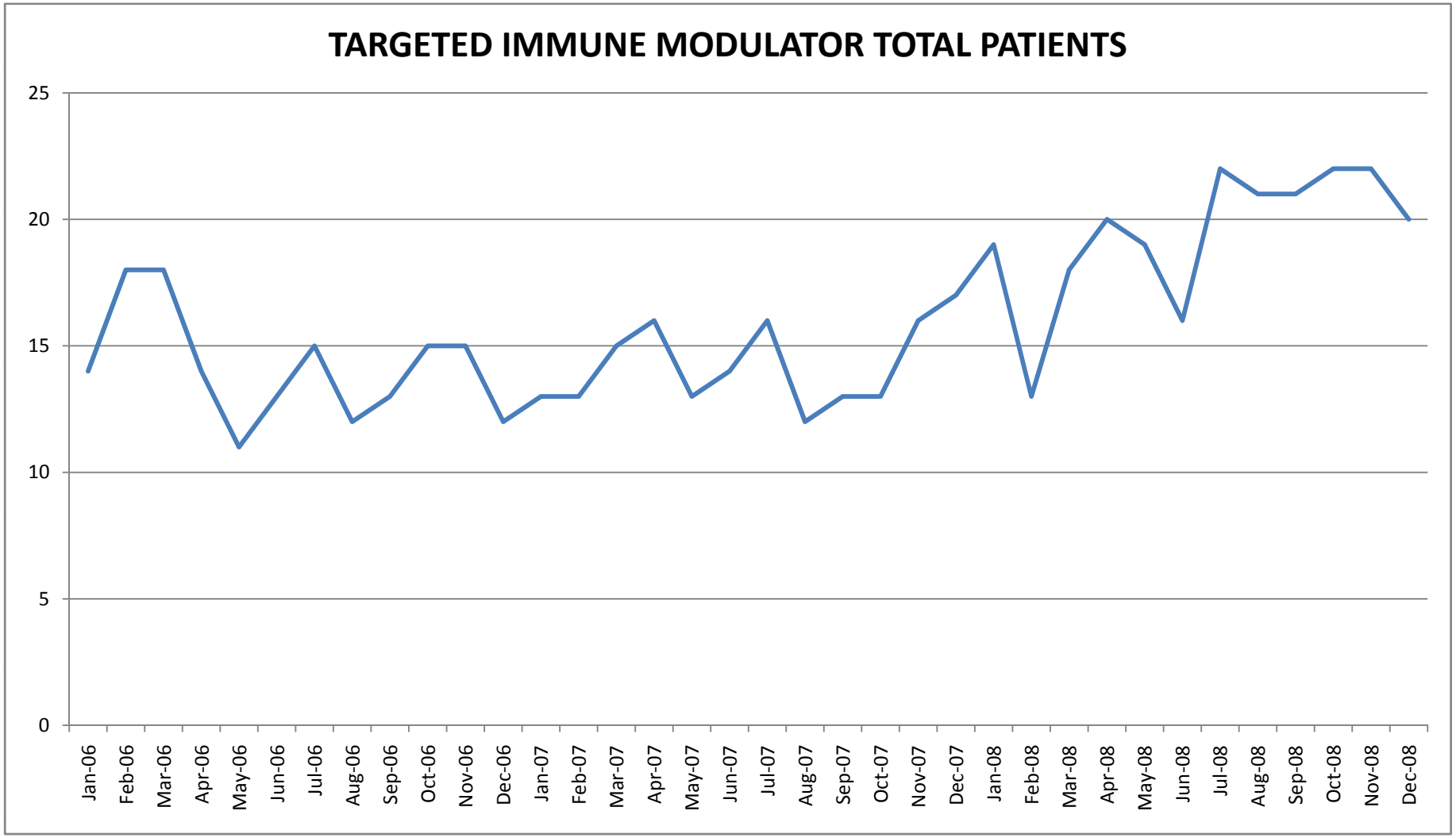
Targeted Immune Modulator Utilization 01/01/08 to 12/31/08		
Generic Name	**Rx Num**	**Total Reimb Amt**
ADALIMUMAB (HUMIRA)	107	$189,846.63
ANAKINRA (KINERET)	11	$9,211.02
ETANERCEPT (ENBREL)	125	$140,691.64
TOTAL 39 Recipients	243	$339,749.29

Summary by Age

Age	Recip Count
3	1
14	1
16	1
17	1
19	2
27	2
28	3
29	1
31	1
34	1
35	2
36	1
37	3
38	1

Summary by Age

Age	Recip Count
40	1
42	2
45	1
46	2
48	1
49	1
50	2
51	1
52	1
54	1
58	1
61	1
62	1
64	2


TARGETED IMMUNE MODULATOR TOTAL PATIENTS
25
20
15
10
5
0
Jan-06
Feb-06
Mar-06
Apr-06
May-06
Jun-06
Jul-06
Aug-06
Sep-06
Oct-06
Nov-06
Dec-06
Jan-07
Feb-07
Mar-07
Apr-07
May-07
Jun-07
Jul-07
Aug-07
Sep-07
Oct-07
Nov-07
Dec-07
Jan-08
Feb-08
Mar-08
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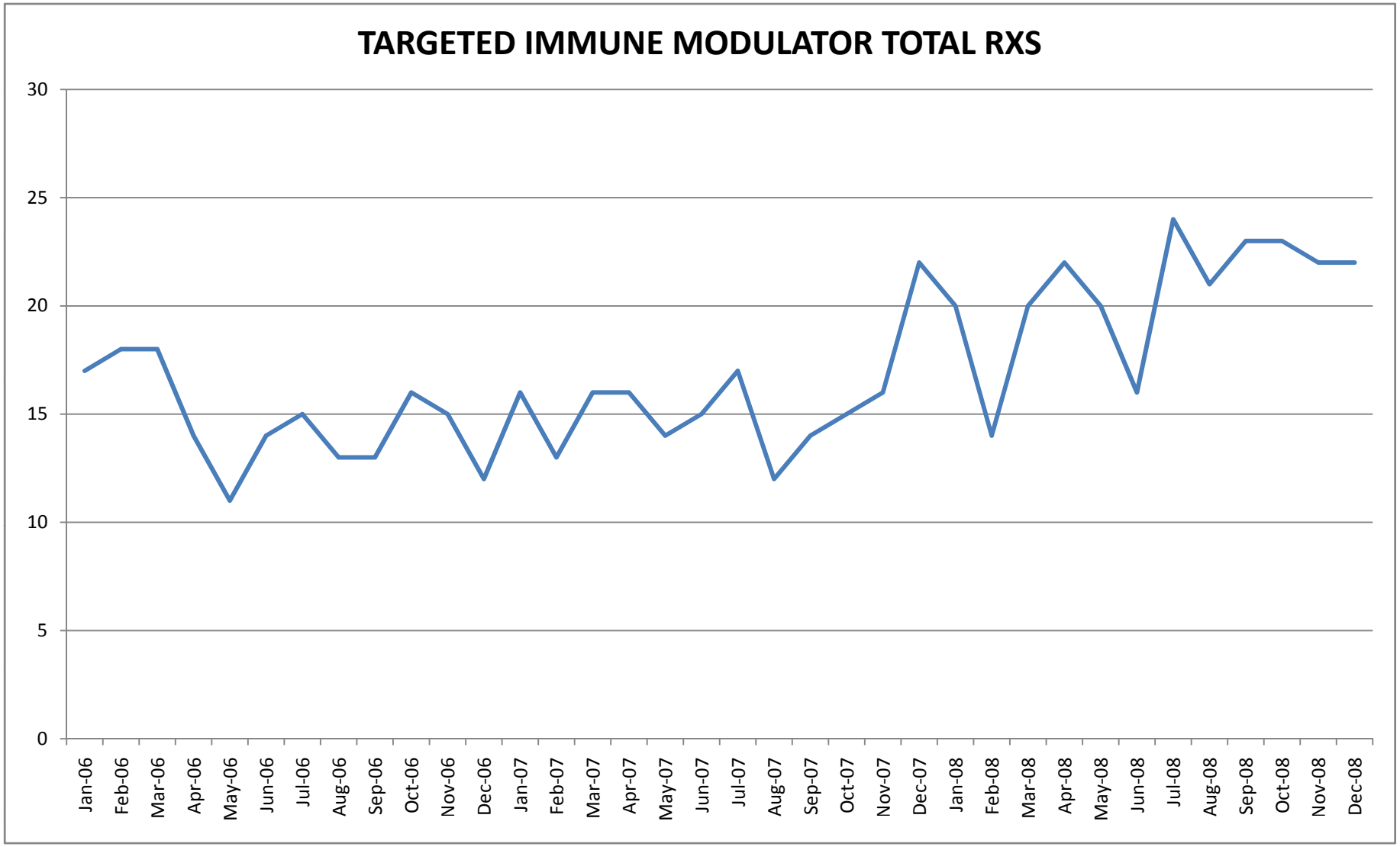
May-08
Jun-08
Jul-08
Aug-08
Sep-08
Oct-08
Nov-08
Dec-08


TARGETED IMMUNE MODULATOR TOTAL RXS
30
25
20
15
10
5
0
Jan-06
Feb-06
Mar-06
Apr-06
May-06
Jun-06
Jul-06
Aug-06
Sep-06
Oct-06
Nov-06
Dec-06
Jan-07
Feb-07
Mar-07
Apr-07
May-07
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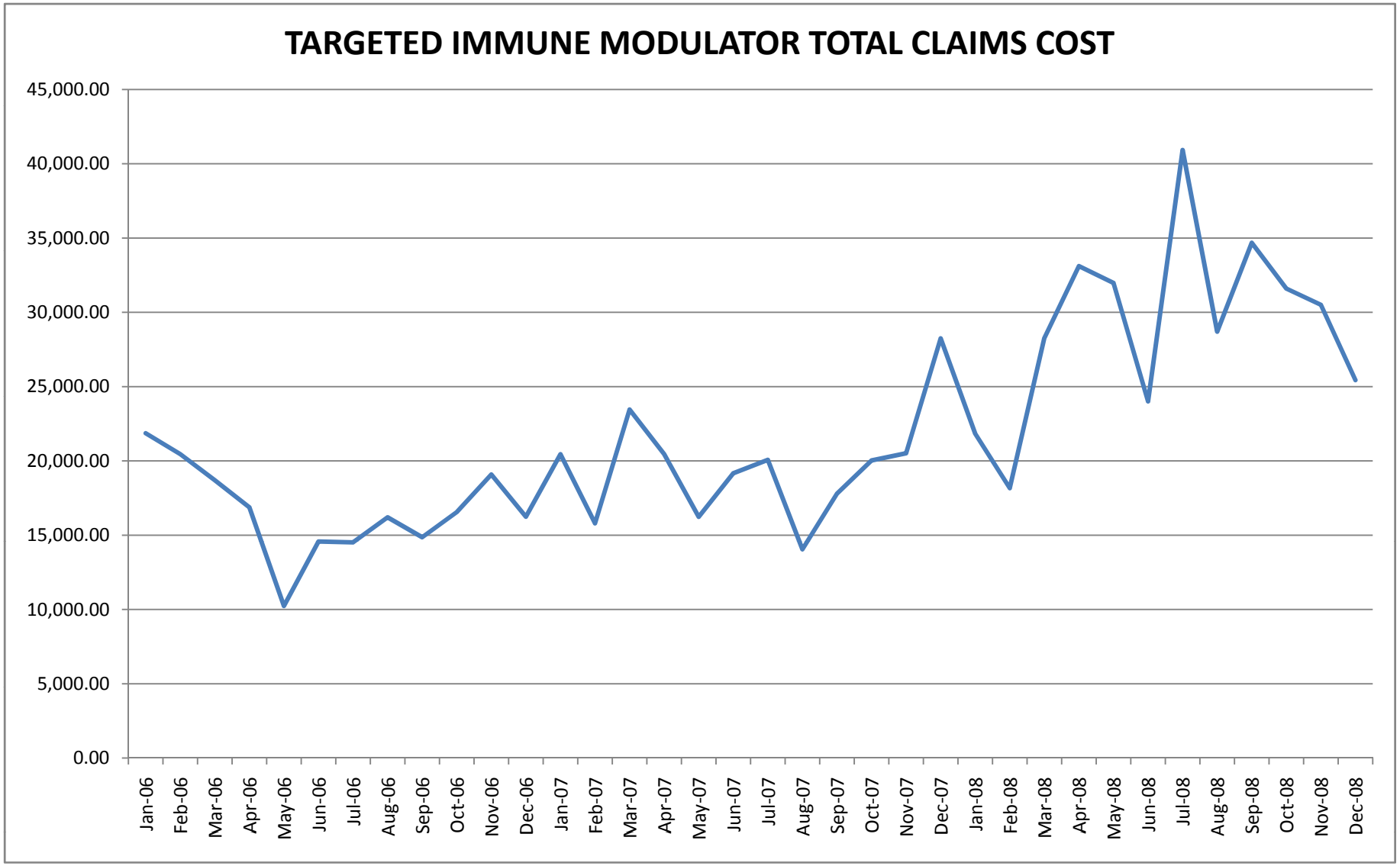
Oct-08
Nov-08
Dec-08


TARGETED IMMUNE MODULATOR TOTAL CLAIMS COST
45,000.00
40,000.00
35,000.00
30,000.00
25,000.00
20,000.00
15,000.00
10,000.00
5,000.00
0.00
Jan-06
Feb-06
Mar-06
Apr-06
May-06
Jun-06
Jul-06
Aug-06
Sep-06
Oct-06
Nov-06
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Sep-08
Oct-08
Nov-08
Dec-08

TARGETED IMMUNE MODULATORS PA FORM

Prior Authorization Vendor for ND Medicaid

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Orencia, Humira, Enbrel, Amevive, Kineret, Cimzia, and Remicade must submit a prior authorization form for coverage.

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug: □ ORENCIA □ HUMIRA □ ENBREL □ AMEVIVE □ KINERET □ CIMZIA □ REMICADE	**Diagnosis for this request:**		
□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*			
Physician Signature		Date	

Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

NORTH DAKOTA MEDICAID
RETROSPECTIVE DRUG UTILIZATION REVIEW
CRITERIA RECOMMENDATIONS
2ND QUARTER 2009

Criteria Recommendations ***Approved*** ***Rejected***

1. Rufinamide / Over-utilization _____ _____

Alert Message: The maximum recommended dose of rufinamide (Banzel) is 3200 mg per day administered in 2 equally divided doses.

Conflict Code: ER - Overutilization
Drugs/Diseases

Util A	Util B	Util C
Rufinamide		

Max Dose: 3200 mg/day

References:
Facts & Comparisons, 2008 Updates.
Banzel Prescribing Information, November 2008, Novartis Pharma AG

2. Rufinamide / Nonadherence _____ _____

Alert Message: Non-adherence to the prescribed dosing regimen for Banzel (rufinamide) may result in sub-therapeutic effects and loss of seizure control.

Conflict Code: LR – Non-adherence
Drugs/Diseases

Util A	Util B	Util C
Rufinamide		

Less than 75 days in 90 day review.

References:
Facts & Comparisons, 2008 Updates.
Banzel Prescribing Information, November 2008, Novartis Pharma AG.

3. Rufinamide / Triazolam _____ _____

Alert Message: The concurrent use of Banzel (rufinamide) with triazolam may result in decreased exposure to triazolam due to the induction, by rufinamide, of CYP3A4-mediated triazolam metabolism. Based on in-vivo studies the co-administration and pre-treatment with rufinamide (400 mg bid) resulted in a 37% decrease in AUC and 23% decrease in Cmax of triazolam.

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

Util A	Util B	Util C
Rufinamide	Triazolam	

References:
Facts & Comparisons, 2008 Updates.
Banzel Prescribing Information, November 2008, Novartis Pharma AG.

4. Rufinamide / Oral Contraceptives _____ _____

Alert Message: The concurrent use of Banzel (rufinamide) with oral contraceptives (OC) may result in decreased exposure to the OC due to the induction, by rufinamide, of CYP3A4-mediated hormone metabolism. Patients of childbearing age should be warned that the coadministration of these agents may render the OC less effective. Additional non-hormonal forms of contraception are recommended during rufinamide therapy.

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

Util A	Util B	Util C
Rufinamide	Oral Contraceptives	

References:
Facts & Comparisons, 2008 Updates.
Banzel Prescribing Information, November 2008, Novartis Pharma AG.

5. Rufinamide / Carbamazepine _____ _____

Alert Message: Concurrent use of Banzel (rufinamide) with carbamazepine may result in decreased plasma levels of both rufinamide (19% to 26%) and carbamazepine (7% to 13%) with the effects being more marked in the pediatric population.

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

Util A	Util B	Util C
Rufinamide	Carbamazepine	

References:
Facts & Comparisons, 2008 Updates.
Banzel Prescribing Information, November 2008, Novartis Pharma AG.

6. Rufinamide / Phenobarbital _____ _____

Alert Message: Concurrent use of Banzel (rufinamide) with phenobarbital may result in a 25% to 46% decrease in rufinamide plasma concentrations and increased phenobarbital concentrations of 8% - 13%. The effect is usually more marked in the pediatric population.

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

Util A	Util B	Util C
Rufinamide	Phenobarbital	

References:
Facts & Comparisons, 2008 Updates.
Banzel Prescribing Information, November 2008, Novartis Pharma AG.

7. Rufinamide / Phenytoin _____ _____

Alert Message: Concurrent use of Banzel (rufinamide) with phenytoin may result in a 25% to 46% decrease in the rufinamide plasma concentrations. Phenytoin plasma levels may increase by 7% to 21% due to phenytoin's non-linear pharmacokinetics. The effect is usually more marked in the pediatric population.

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

Util A	Util B	Util C
Rufinamide	Phenytoin	

References:
Facts & Comparisons, 2008 Updates.
Banzel Prescribing Information, November 2008, Novartis Pharma AG.

8. Rufinamide / Primidone _____ _____

Alert Message: Concurrent use of Banzel (rufinamide) with primidone may result in a 25% to 46% decrease in rufinamide concentrations independent of dose or concentration of primidone. The effect is usually more marked in the pediatric population.

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

Util A	Util B	Util C
Rufinamide	Primidone	

References:
Facts & Comparisons, 2008 Updates.
Banzel Prescribing Information, November 2008, Novartis Pharma AG.

9. Rufinamide / Valproate _____ _____

Alert Message: Concurrent use of Banzel (rufinamide) with valporate may result in a 16% to 70% increase in rufinamide concentrations with the more marked effect in the pediatric population. Patients stabilized on rufinamide before being prescribed valproate should begin valproate therapy at a low dose, and titrate to a clinically effective dose. Patients on valporate who have rufinamide added to the regimen should begin with a rufinamide dose lower than 400mg.

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

Util A	Util B	Util C
Rufinamide	Valporate	

References:
Facts & Comparisons, 2008 Updates.
Banzel Prescribing Information, November 2008, Novartis Pharma AG.

10. Rufinamide / Lamotrigine _____ _____

Alert Message: Concurrent use of Banzel (rufinamide) and lamotrigine may result in a 7% to 13% decrease in lamotrigine concentrations in a concentration-dependent manner. The effect is usually more marked in the pediatric population.

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

Util A	Util B	Util C
Rufinamide	Lamotrigine	

References:
Facts & Comparisons, 2008 Updates.
Banzel Prescribing Information, November 2008, Novartis Pharma AG.

11. Rufinamide /Short QT Syndrome Inducing Drugs _____ _____

Alert Message: Banzel (rufinamide) is contraindicated in patients with familial short QT syndrome. Formal cardiac ECG studies demonstrated shortening of the QT interval up to 20 msec with rufinamide treatment. Caution should also be used when administering rufinamide with other drugs that shorten the QT interval.

Conflict Code: DC – Inferred Drug Disease Warning
Drugs/Diseases

Util A	Util B		Util C
Rufinamide	Short QT Interval		
	Digoxin	Propafenone	
	Lamotrigine	Moricizine	
	Ranolazine	Lidocaine	
	Magnesium	Carbamazepine	
	Mexiletine	Amitriptyline	
	Procainamide	Imipramine	
	Disopyramide	Haloperidol	
	Phenytoin	Metoclopramide	
	Flecainide		

References:
Facts & Comparisons, 2008 Updates.
Banzel Prescribing Information, November 2008, Novartis Pharma AG.

12. Metoclopramide / Over-utilization _____ _____

Alert Message: Therapy with metoclopramide should not exceed 12 weeks. This agent is FDA approved for short-term therapy (4 -12 weeks) for adults with symptomatic documented GERD who fail to respond to conventional therapy and for treatment of diabetic gastroparesis (2 - 8 weeks). Chronic use of metoclopramide has been linked to tardive dyskinesia even after the drug is no longer taken. The risk of tardive dyskinesia and other adverse effects of metoclopramide increases with duration of treatment and cumulative dose.

Conflict Code: TA – Therapeutic Appropriateness **(Black Box Warning)**
Drugs/Diseases

Util A	Util B	Util C
Metoclopramide		

Duration: 90 days or greater

References:
MedWatch: FDA Safety Information and Adverse Event Reporting Program, 2009.
Reglan Prescribing Information, Feb. 2004, Schwarz Pharma.
Facts & Comparisons, 2009 Updates.

DUR Board Meeting
September 14, 2009

Pioneer Room
State Capitol

1pm

north dakota
department of
human services

North Dakota Medicaid
DUR Board Meeting
Agenda
Pioneer Room
State Capitol
September 14, 2009
1pm

1. Administrative items
    - Travel vouchers
    - Board members sign in

2. Old business

• Review and approval of minutes of 06/01/09 meeting	Chairman
• Budget update	Brendan
• Second review of Uloric	HID
• Second review of Moxatag	HID
• Second review of Targeted Immune Modulators	HID
• Yearly PA review	HID
o Dispense as Written	
o Amrix/Fexmid	
o Xenical	
o Zanaflex	
o Ketek	

3. New business

• Review of Hemophilia	HID
• Review of Sancuso	HID
• Review of Relistor	HID
• Review of Nuvigil	HID
• Review of Nucynta	HID
• Criteria recommendations	Brendan
• Upcoming meeting date/agenda	Chairman

4. Adjourn — Chairman

Please remember to turn all cellular phones and pagers to silent mode during the meeting.

Drug Utilization Review (DUR) Meeting Minutes
June 1, 2009

Members Present: Patricia Churchill, Norman Byers, Carrie Sorenson, Greg Pfister, Kim Krohn, Jeffrey Hostetter, John Savageau, Scott Setzepfandt, Leeann Ness, Carlotta McCleary, Cheryl Huber, Gary Betting
Members Absent: Steve Irsfeld, Todd Twogood
Medicaid Pharmacy Department: Brendan Joyce
HID Staff Present: Candace Rieth

Chair, C. Sorenson called the meeting to order at 1:09 pm. Chair, C. Sorenson asked for a motion to approve the minutes from the March meeting. J. Hostetter moved that the minutes be approved and N. Byers seconded the motion. Chair, C. Sorenson called for a voice vote to approve the minutes. The motion passed with no audible dissent.

Synagis Annual Review
B. Joyce reviewed Synagis utilization for the 2008-2009 RSV season. The season ran from October 15th through April 20th. For the 2009-2010 Synagis season, the department would like to make the enrollment process web-based. RSV treatment guidelines will be reviewed and incorporated into the enrollment process.

Budget Update
B. Joyce stated that the budget approved during the legislative session is $50,168,148 for the next biennium. Medicaid enrollment is approximately 54,000 and approximately 33% receive prescriptions.

Provider Mailings
At the March meeting, Board members requested that two letters be mailed to providers informing them of the tablet splitting initiative as well as the ADHD dose optimization initiative. C. Rieth informed the Board that 463 letters were sent to providers of medications used to treat ADHD and 150 tablet splitting letters were sent.

Aczone Second Review
At the March meeting a motion was made to prior authorize Aczone. Chair, C. Sorenson called for a voice vote. Motion passed with no audible dissent.

Yearly PA Review
The Board reviews products annually that have previously been placed on prior authorization. This allows the Board a chance to update the prior authorization forms and criteria. Sedative/Hypnotics, Qualaquin, ACE-Is/ARBs/Renin Inhibitors, Synagis, and Growth Hormones were reviewed. The following recommendations were made: Add a checkbox and criteria for Sedative/Hypnotics that states 'high risk for addiction' and combine the ACE-Is/ARBs/Renin Inhibitors on one form.

Legislative Update
B. Joyce gave the legislative update. House Bill 1385 was the bill that would make current restrictions on certain classes of medications permanent. The Senate and House both voted to make the restrictions permanent and the governor signed the bill. Classes of medication affected by this bill include antipsychotics, antidepressants, anticonvulsants, antiretrovirals, antineoplastics and stimulant medication used for the treatment of attention deficit disorder and attention deficit hyperactivity disorder.

Another change made to House Bill 1385 was the addition of a pharmacist or physician representing the generic pharmaceutical industry to the DUR Board.

Uloric Review
B. Joyce reviewed Uloric with Board members. Scott Kelsen spoke on behalf of Takeda, manufacturer of Uloric. K. Krohn made a motion to include renal and hepatic impairment as a criterion for approval of Uloric. N. Byers seconded the motion. Chair, C. Sorenson called for a voice vote. The motion passed with no audible dissent. J. Hostetter made a motion that serum uric acid level be removed from the Uloric prior authorization form and the failed trial be reduced from 3 months to 1 month. G. Pfister seconded the motion. Chair, C. Sorenson called for a voice vote. The motion passed with no audible dissent. P. Churchill made a motion to prior authorize Uloric with the amended changes. G. Pfister seconded the motion. This topic will be brought up again at the next Board meeting for finalization.

Moxatag Review
B. Joyce reviewed Moxatag with Board members. There was no public comment. J. Savageau made a motion to prior authorize Moxatag. C. Huber seconded the motion. This topic will be brought up again at the next Board meeting for finalization.

Savella Review
B. Joyce reviewed Savella with Board members. Tobie Escher spoke on behalf of Forest Pharmaceuticals, manufacturer of Savella. After much discussion, the Board recommended that the prior authorization of Savella be tabled.

Targeted Immune Modulators
B. Joyce reviewed targeted immune modulators with the Board members. Jonathan Holt spoke on behalf of UCB, manufacturer of Cimzia. Hoa Pham spoke on behalf of Amgen, manufacturer of Enbrel. J. Hostetter made a motion to place targeted immune modulators on prior authorization. G. Pfister seconded the motion. This topic will be brought up again at the next Board meeting for finalization.

Criteria Recommendations
The recommended RDUR criteria enclosed in the packet were developed from product information provided by the manufacturers and usually are consistent with new indications, new drugs added, new warnings, etc. These proposed criteria will be added to the current set of criteria, and will be used in future DUR cycles. J. Savageau moved to approve the new criteria and G. Pfister seconded the motion. Chair, C. Sorenson called for a voice vote. The motion passed with one audible dissent.

The next DUR board meeting will be held September 14, 2009. J. Hostetter made a motion to adjourn the meeting into executive session to review patient profiles. N. Byers seconded. The motion passed with no audible dissent. Chair C. Sorenson adjourned the meeting at 2:55 pm.

Executive Session
Chair C. Sorenson called the executive session to order at 3:10. DUR Board members reviewed patient profiles and physician responses generated from the low dose antipsychotic mailing. The executive session was adjourned at 3:30 pm.

ULORIC PA FORM

Prior Authorization Vendor for ND Medicaid

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Uloric must try allopurinol as first line therapy or have documented renal/hepatic dysfunction.

- Allopurinol does not require a prior authorization.

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Prescriber Name			
Prescriber Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ ULORIC	**Diagnosis for this request:**		

Qualifications for coverage:

□ FAILED ALLOPURINOL THERAPY	Start Date	End Date	Dose	Frequency
□ RENAL OR HEPATIC IMPAIRMENT				
□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*				
Prescriber Signature			Date	

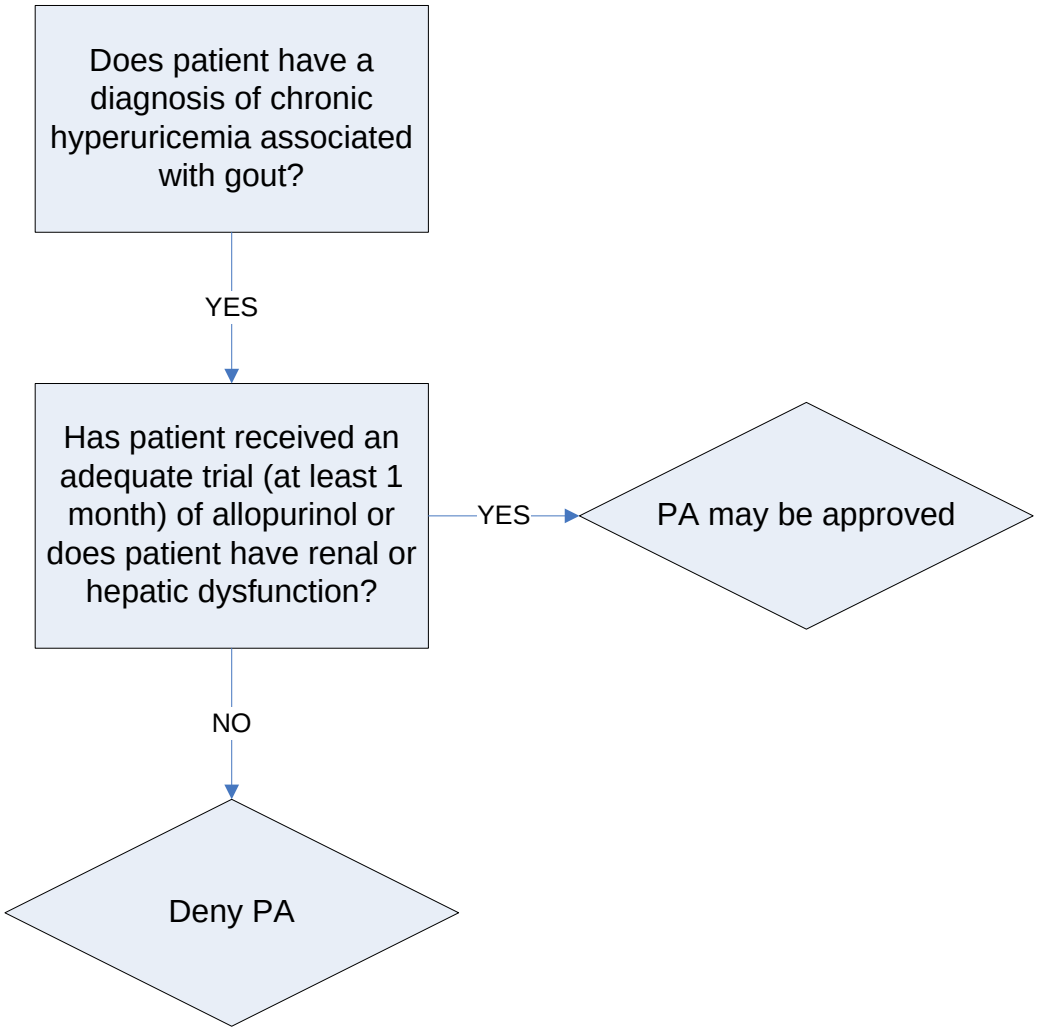
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Uloric Authorization Algorithm



Allopurinol does not require a prior authorization.

MOXATAG PA FORM

Prior Authorization Vendor for ND Medicaid

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Moxatag must submit documentation of allergies or show a history of intolerable side effects to the inactive ingredients in regular-release amoxicillin.

- Regular-release amoxicillin does not require a prior authorization.

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code

REQUESTED DRUG : □ MOXATAG	**Dosage**
Qualifications for coverage:	
□ Allergic/intolerable side effects to inactive ingredients of regular-release amoxicillin. Name of inactive ingredient: _____	Diagnosis for this request:
□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*	
Physician Signature	Date

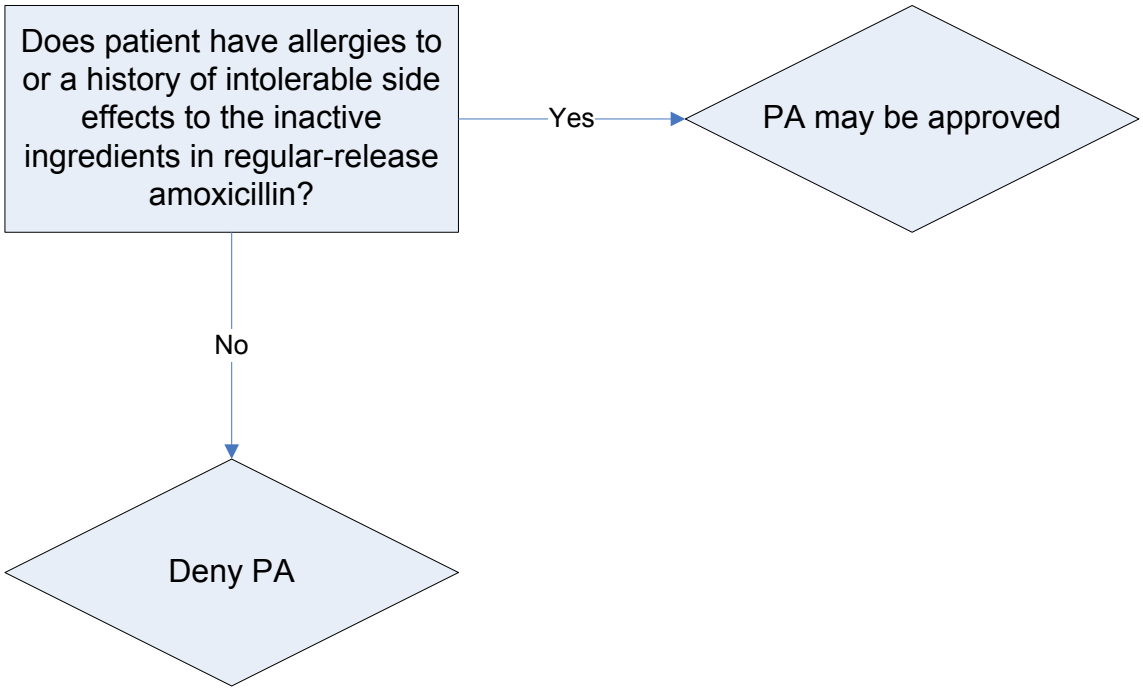
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Moxatag Authorization Algorithm



Regular-release amoxicillin does not require a prior authorization and costs approximately $4.40 for a course of therapy compared to $84.40 for a course of Moxatag therapy.

TARGETED IMMUNE MODULATORS PA FORM

Prior Authorization Vendor for ND Medicaid

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Orencia, Humira, Enbrel, Amevive, Kineret, Cimzia, Remicade, and Simponi must submit a prior authorization form.

- Prior authorization will be granted if the requested product has been approved by the FDA for the indication listed below.

Part I: TO BE COMPLETED BY PHYSICIAN

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ ORENCIA □ AMEVIVE □ ENBREL □ CIMZIA □ KINERET □ REMICADE □ HUMIRA □ SIMPONI	**FDA Approved Indication for this request:**		
□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*			
Physician Signature		Date	

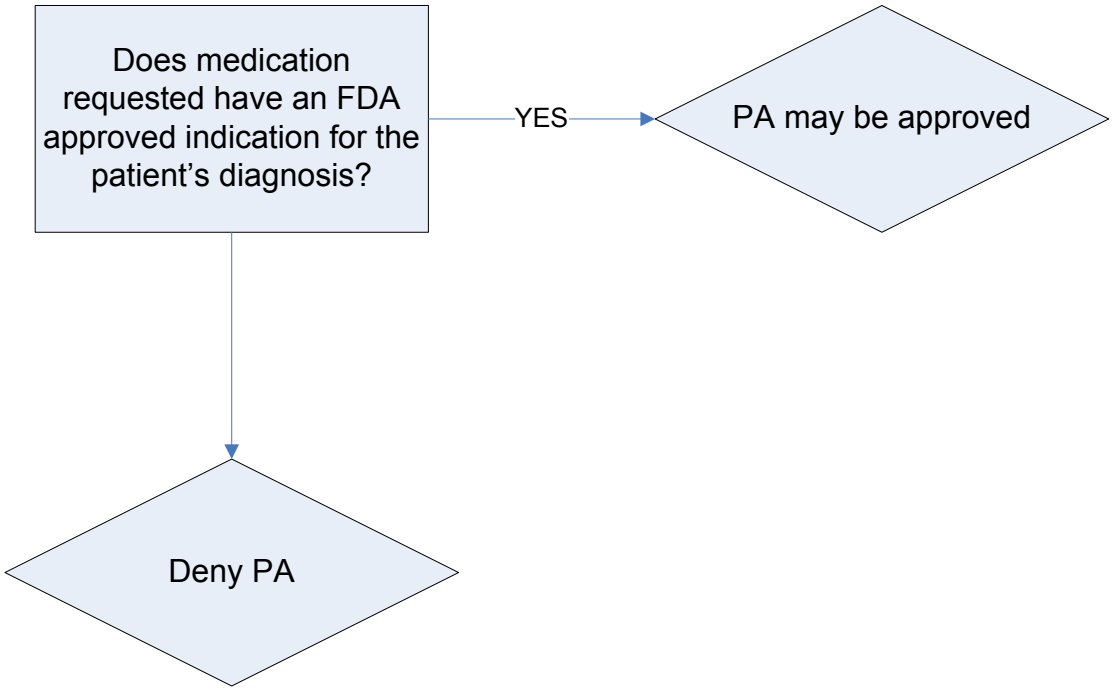
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Targeted Immune Modulators Authorization Algorithm



HEALTH INFORMATION DESIGNS

DISPENSE AS WRITTEN PA FORM

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

North Dakota Medicaid requires that patients receiving a brand name drug, when there is a generic equivalent available, must first try and fail the generic product for one of the following reasons.

- **The generic product was not effective**
- **There was an adverse reaction with the generic product**

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name		Recipient Date of Birth		Recipient Medicaid ID Number	
Prescriber Name					
Prescriber Medicaid Provider Number		Telephone Number		Fax Number	
Address		City		State	Zip Code
Requested Drug:	**DOSAGE:**	**Diagnosis for this request:**			
QUALIFICATIONS FOR COVERAGE: □ FAILED GENERIC EQUIVALENT		**Start Date**	**End Date**	**Dose**	**Frequency**
ADVERSE REACTION TO GENERIC EQUIVALENT (ATTACH FDA MEDWATCH FORM) OR CONTRAINDICATED (PROVIDE DESCRIPTION):					
□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*					
Prescriber Signature				Date	

Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

AMRIX PA Form

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

ND Medicaid requires that patients try and fail generic cyclobenzaprine.
**Note:*

- **Cyclobenzaprine does not require PA**
- **Patient must fail therapy on generic cyclobenzaprine before a PA will be considered for Amrix.**

Part I: TO BE COMPLETED BY PRESCRIBER

RECIPIENT NAME:	RECIPIENT MEDICAID ID NUMBER:
Recipient Date of birth: / /	
PRESCRIBER NAME:	PRESCRIBER MEDICAID ID NUMBER:
Address:	Phone: ( )
City:	FAX: ( )
State: Zip:	
REQUESTED DRUG:	**Requested Dosage:** (must be completed)

Qualifications for coverage:

❑ Failed cyclobenzaprine therapy	Start Date: End Date:	Dose: Frequency:

□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*

Prescriber Signature: Date:

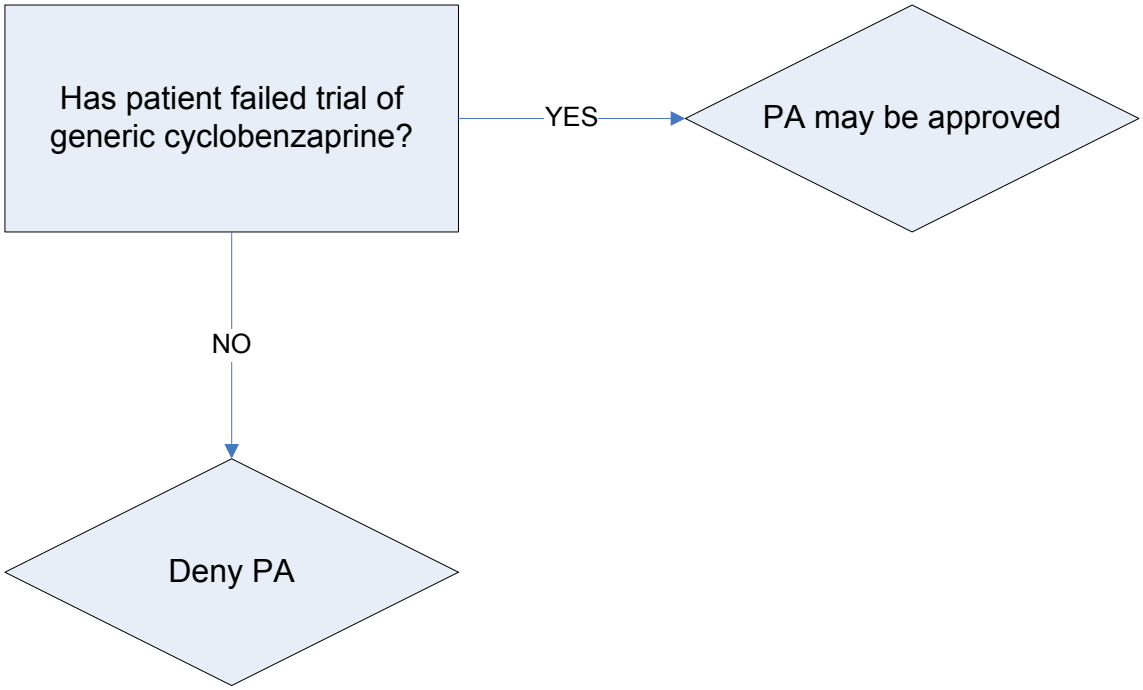
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:	ND MEDICAID PROVIDER NUMBER:
Phone:	FAX:
Drug:	NDC#:

Part III: FOR OFFICIAL USE ONLY

Date: / /	Initials: _____
Approved - Effective dates of PA: From: / /	To: / /
Denied: (Reasons)	

North Dakota Department of Human Services
Amrix Authorization Algorithm



HEALTH INFORMATION DESIGNS

Xenical Prior Authorization

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

ND Medicaid requires that patients receiving a prescription for Xenical must be seen by a dietician.
Note:

- ***Patient must have dietician evaluation attached to PA form including height and weight.***
- ***BMI must be equal to or greater than 40.***
- ***5% weight loss must be realized for continued approval (every 6 months).***

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Prescriber Name			
Prescriber Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ XENICAL	**Diagnosis for this request:**		
Qualifications for coverage:			
□ Dietician evaluation attached	Height:	Weight:	BMI:
Prescriber Signature		Date	

Part II: TO BE COMPLETED BY PHARMACY

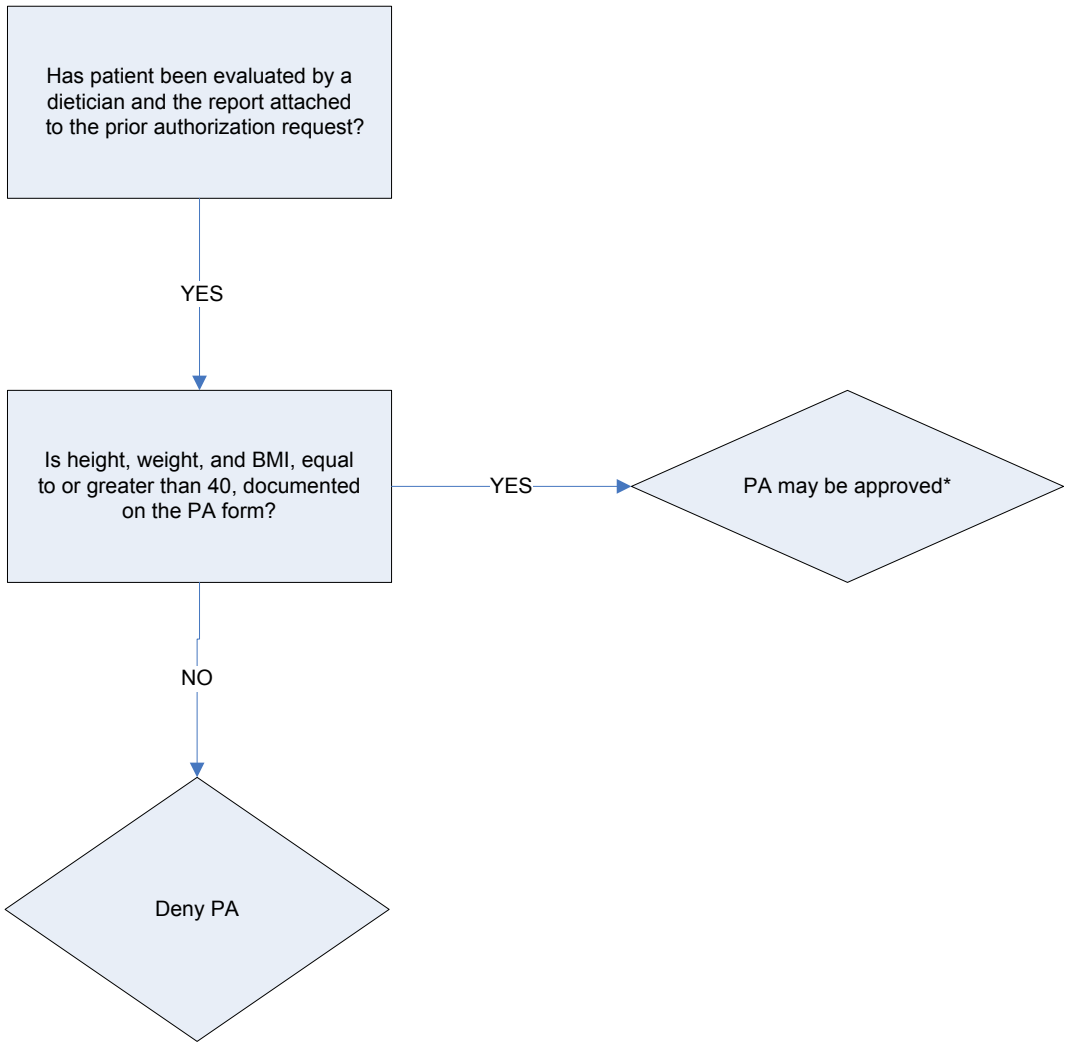
PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services

Xenical Prior Authorization Criteria



*5% weight loss must be realized for continued approval every 6 months.

HEALTH INFORMATION DESIGNS

Prior Authorization Vendor for ND Medicaid

Zanaflex Capsule PA Form

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving Zanaflex capsules must use tizanidine tablets first line.
***Note:**

- **Tizanidine tablets do not require a PA.**
- **Patient must fail therapy on tizanidine tablets before a PA may be granted.**

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Prescriber Name			
Prescriber Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage:	**Diagnosis for this request:**		
Qualifications for coverage:			
□ Failed generic drug	Start Date: End Date:	Dose: Frequency:	
□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*			
Prescriber Signature		Date	

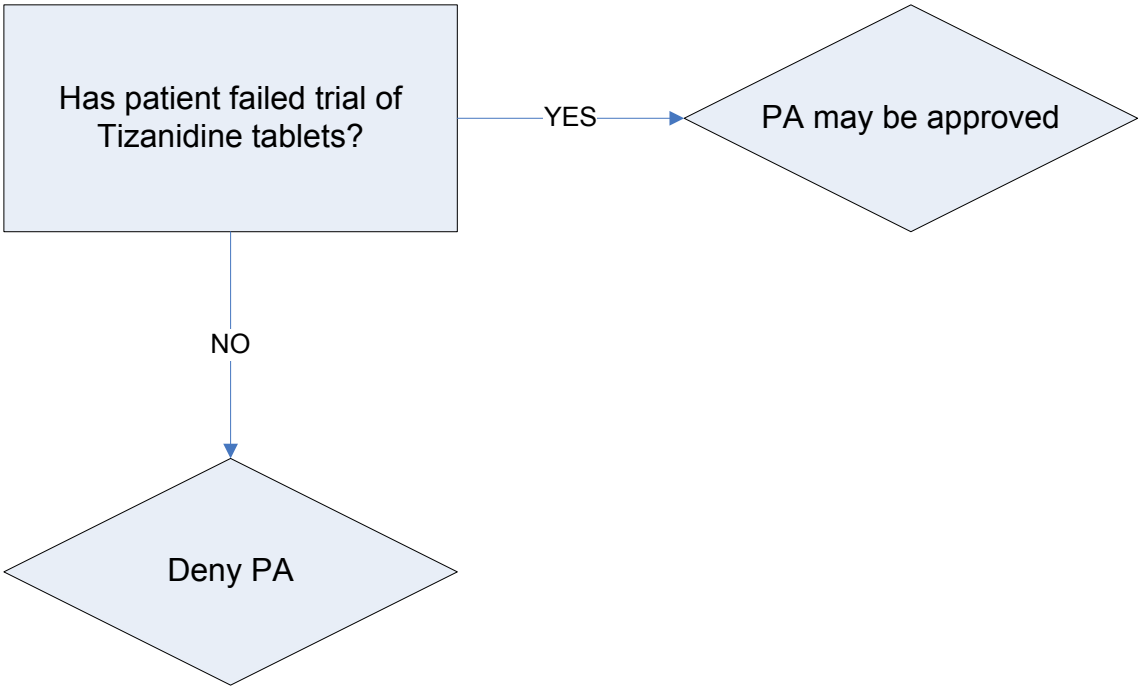
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
PHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Zanaflex Authorization Algorithm



KETEK PA FORM

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

- ND Medicaid will cover Ketek with a diagnosis of community-acquired pneumonia (of mild to moderate severity) due to Streptococcus pneumoniae for patients 18 years and older.
- ND Medicaid will cover Ketek for patients with an allergy to fluoroquinolones or tetracyclines.

Part I: TO BE COMPLETED BY PRESCRIBER

RECIPIENT NAME:	RECIPIENT MEDICAID ID NUMBER:
Recipient Date of birth: / /	
PRESCRIBER NAME:	PRESCRIBER MEDICAID ID NUMBER:
Address:	Phone: ( )
City:	FAX: ( )
State: Zip:	

REQUESTED DRUG: □ **KETEK**	**Requested Dosage:** (must be completed)

Qualifications for coverage:

□ Community acquired pneumonia (of mild to moderate severity) due to Streptococcus pneumoniae, (including multi-drug resistant isolates, Haemophilus influenzae, Moraxella catarrhalis, Chlamydophila pneumoniae, or Mycoplasma pneumoniae) for patients 18 years and older.

□ Please list fluoroquinolone or tetracycline that patient is allergic to: _____

□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*

Prescriber Signature: Date:

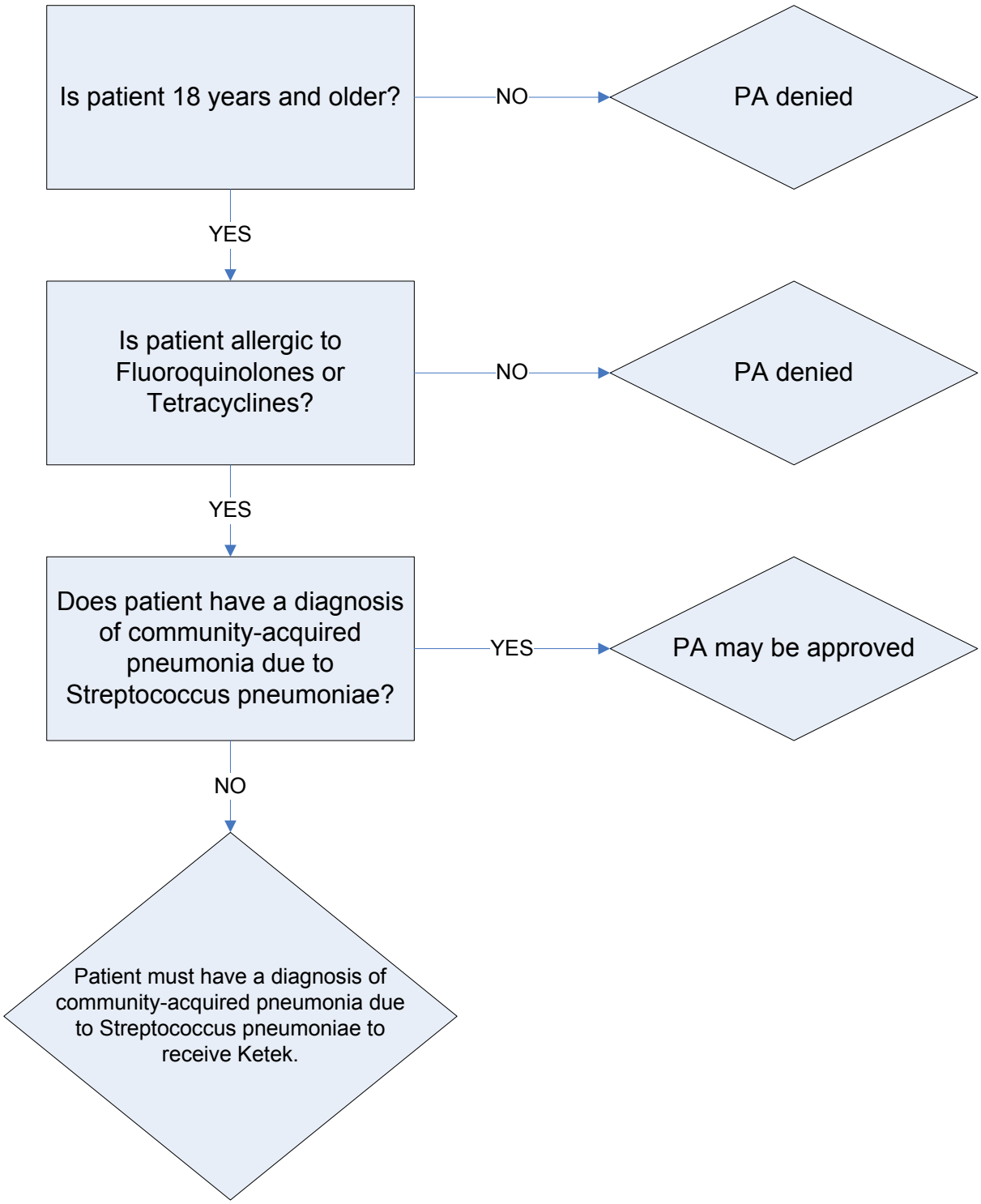
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:	ND MEDICAID PROVIDER NUMBER:
Phone:	FAX:
Drug:	NDC#:

Part III: FOR OFFICIAL USE ONLY

Date: / /	Initials: _____
Approved - Effective dates of PA: From: / /	To: / /
Denied: (Reasons)	

North Dakota Department of Human Services
Ketek Criteria Algorithm



Hemophilia

Description

Hemophilia is a rare bleeding disorder in which patients have little or no clotting factor. Without clotting factors, normal blood clotting cannot take place.

Types of Hemophilia

There are two main types of hemophilia. Hemophilia A patients have low levels of clotting factor VIII. Ninety percent of hemophilia patients have type A. Hemophilia B patients have low levels of clotting factor IX.

Outlook

Hemophilia can be mild, moderate, or severe depending on how much clotting factor is in the blood. People who don't have hemophilia have a factor VIII activity of 100 percent; people who have severe hemophilia A have a factor VIII activity of less than 1 percent.

About 18,000 people in the United States have hemophilia. Each year about 400 babies are born with the disorder.

North Dakota Factor VIII Utilization

Factor VIII Utilization			
January 2008 - December 2008			
Label Name	**Rx Num**	**Qty Dispensed**	**Total Reimb Amt**
HELIXATE FS 250 UNIT VIAL	8	10362	$11,054.28
ADVATE 801-1,200 UNITS VIAL	2	26124	$30,826.32
HELIXATE FS 2,000 UNIT VIAL	7	52824	$55,902.24
ADVATE 2,400-3,600 UNITS VIAL	2	84448	$99,648.64
HELIXATE FS 500 UNIT VIAL	13	55453	$59,263.75
HELIXATE FS 1,000 UNITS VIAL	28	308174	$329,121.23
ADVATE 1,801-2,400 UNITS VIAL	45	2352790	$2,776,292.20
Total 5 recipients	105	2890175	$3,362,108.66

Patients	Rx Count	Total Dollars	Provider Specialty
A	11	$150,237.08	Hematologist
B	26	$176,295.90	Hematology/Oncology
C	49	$2,906,767.16	Family Practice
D	7	$96,170.14	Hematologist
E	12	$32,638.35	Hematologist

National Heart Lung and Blood Institute. What is hemophilia, update June09. Accessed online http://www.nhlbi.nih.gov, July 2009.

2008 Hemophilia Utilization per Patient

Patient A

Date Rx Dispensed	Label Name	Qty Dispensed	Days Supply
12/31/2008	HELIXATE FS 1,000 UNITS VIAL	12408	21
12/8/2008	HELIXATE FS 1,000 UNITS VIAL	12408	21
11/11/2008	HELIXATE FS 1,000 UNITS VIAL	12408	30
10/14/2008	HELIXATE FS 1,000 UNITS VIAL	12408	30
8/25/2008	HELIXATE FS 1,000 UNITS VIAL	12564	30
7/25/2008	HELIXATE FS 1,000 UNITS VIAL	12564	30
6/25/2008	HELIXATE FS 1,000 UNITS VIAL	12564	30
5/21/2008	HELIXATE FS 1,000 UNITS VIAL	12504	30
4/15/2008	HELIXATE FS 1,000 UNITS VIAL	12504	30
1/29/2008	HELIXATE FS 1,000 UNITS VIAL	14244	30
1/3/2008	HELIXATE FS 1,000 UNITS VIAL	14244	30

Patient B

Date Rx Dispensed	Label Name	Qty Dispensed	Days Supply
12/10/2008	HELIXATE FS 500 UNIT VIAL	4768	3
12/10/2008	HELIXATE FS 1,000 UNITS VIAL	9000	5
11/12/2008	HELIXATE FS 500 UNIT VIAL	4768	8
11/12/2008	HELIXATE FS 1,000 UNITS VIAL	9000	8
10/15/2008	HELIXATE FS 250 UNIT VIAL	2296	8
10/15/2008	HELIXATE FS 500 UNIT VIAL	4280	8
10/15/2008	HELIXATE FS 1,000 UNITS VIAL	8376	8
8/20/2008	HELIXATE FS 500 UNIT VIAL	4280	3
8/20/2008	HELIXATE FS 1,000 UNITS VIAL	9352	5
7/23/2008	HELIXATE FS 500 UNIT VIAL	4368	8
7/23/2008	HELIXATE FS 1,000 UNITS VIAL	9352	8
6/25/2008	HELIXATE FS 500 UNIT VIAL	4368	4
6/25/2008	HELIXATE FS 1,000 UNITS VIAL	8336	4
5/29/2008	HELIXATE FS 500 UNIT VIAL	4368	8
5/29/2008	HELIXATE FS 1,000 UNITS VIAL	8336	8
5/1/2008	HELIXATE FS 500 UNIT VIAL	4368	8
5/1/2008	HELIXATE FS 1,000 UNITS VIAL	8336	8
4/3/2008	HELIXATE FS 500 UNIT VIAL	4368	4
4/3/2008	HELIXATE FS 1,000 UNITS VIAL	8336	4
3/27/2008	HELIXATE FS 500 UNIT VIAL	2184	4
3/27/2008	HELIXATE FS 1,000 UNITS VIAL	4168	4
3/5/2008	HELIXATE FS 250 UNIT VIAL	2296	8
3/5/2008	HELIXATE FS 1,000 UNITS VIAL	9224	2
2/6/2008	HELIXATE FS 500 UNIT VIAL	6617	2
2/6/2008	HELIXATE FS 1,000 UNITS VIAL	10393	8
1/9/2008	HELIXATE FS 1,000 UNITS VIAL	9496	8

2008 Hemophilia Utilization per Patient

Patient C

Date Rx Dispensed	Label Name	Qty Dispensed	Days Supply
12/22/2008	ADVATE 1,801-2,400 UNITS VIAL	57260	7
12/16/2008	ADVATE 1,801-2,400 UNITS VIAL	57260	7
12/2/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
11/25/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
11/18/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
11/11/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
11/4/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
10/28/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
10/22/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
10/15/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
10/8/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
10/1/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
9/24/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
9/17/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
9/10/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
9/3/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
8/27/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
8/20/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
8/13/2008	ADVATE 1,801-2,400 UNITS VIAL	55048	7
8/6/2008	ADVATE 1,801-2,400 UNITS VIAL	54908	7
7/30/2008	ADVATE 1,801-2,400 UNITS VIAL	54908	7
7/23/2008	ADVATE 1,801-2,400 UNITS VIAL	54908	7
7/16/2008	ADVATE 1,801-2,400 UNITS VIAL	54908	7
7/9/2008	ADVATE 1,801-2,400 UNITS VIAL	55132	7
7/2/2008	ADVATE 1,801-2,400 UNITS VIAL	55132	7
6/25/2008	ADVATE 1,801-2,400 UNITS VIAL	55132	7
6/18/2008	ADVATE 1,801-2,400 UNITS VIAL	55132	7
6/11/2008	ADVATE 1,801-2,400 UNITS VIAL	55132	7
6/2/2008	ADVATE 1,801-2,400 UNITS VIAL	55132	7
5/28/2008	ADVATE 1,801-2,400 UNITS VIAL	55132	7
5/21/2008	ADVATE 1,801-2,400 UNITS VIAL	55132	7
5/14/2008	ADVATE 1,801-2,400 UNITS VIAL	55132	7
5/7/2008	ADVATE 1,801-2,400 UNITS VIAL	55580	7
4/30/2008	ADVATE 1,801-2,400 UNITS VIAL	55580	7
4/23/2008	ADVATE 1,801-2,400 UNITS VIAL	55580	7
4/16/2008	ADVATE 2,400-3,600 UNITS VIAL	42224	7
4/15/2008	ADVATE 801-1,200 UNITS VIAL	13062	7
4/10/2008	ADVATE 2,400-3,600 UNITS VIAL	42224	7
4/9/2008	ADVATE 801-1,200 UNITS VIAL	13062	7
4/2/2008	ADVATE 1,801-2,400 UNITS VIAL	55580	7

2008 Hemophilia Utilization per Patient

Date Rx Dispensed	Label Name	Qty Dispensed	Days Supply
3/25/2008	ADVATE 1,801-2,400 UNITS VIAL	55580	7
3/18/2008	ADVATE 1,801-2,400 UNITS VIAL	55580	7
3/11/2008	ADVATE 1,801-2,400 UNITS VIAL	55580	7
3/6/2008	ADVATE 1,801-2,400 UNITS VIAL	27790	7
2/28/2008	ADVATE 1,801-2,400 UNITS VIAL	39700	10
2/6/2008	ADVATE 1,801-2,400 UNITS VIAL	38260	9
1/30/2008	ADVATE 1,801-2,400 UNITS VIAL	30608	8
1/23/2008	ADVATE 1,801-2,400 UNITS VIAL	30608	8
1/2/2008	ADVATE 1,801-2,400 UNITS VIAL	30608	8

Patient D

Date Rx Dispensed	Label Name	Qty Dispensed	Days Supply
6/16/2008	HELIXATE FS 2,000 UNIT VIAL	25548	30
6/16/2008	HELIXATE FS 250 UNIT VIAL	2976	30
5/2/2008	HELIXATE FS 500 UNIT VIAL	2204	1
2/19/2008	HELIXATE FS 1,000 UNITS VIAL	7122	7
1/11/2008	HELIXATE FS 1,000 UNITS VIAL	28488	30
1/3/2008	HELIXATE FS 500 UNIT VIAL	4512	8
1/3/2008	HELIXATE FS 1,000 UNITS VIAL	18992	8

Patient E

Date Rx Dispensed	Label Name	Qty Dispensed	Days Supply
8/27/2008	HELIXATE FS 250 UNIT VIAL	1016	10
8/27/2008	HELIXATE FS 2,000 UNIT VIAL	9092	10
8/22/2008	HELIXATE FS 250 UNIT VIAL	1016	4
8/22/2008	HELIXATE FS 2,000 UNIT VIAL	9092	4
8/21/2008	HELIXATE FS 250 UNIT VIAL	254	1
8/21/2008	HELIXATE FS 2,000 UNIT VIAL	2273	1
8/20/2008	HELIXATE FS 250 UNIT VIAL	254	1
8/20/2008	HELIXATE FS 2,000 UNIT VIAL	2273	1
8/19/2008	HELIXATE FS 250 UNIT VIAL	254	1
8/19/2008	HELIXATE FS 2,000 UNIT VIAL	2273	1
8/14/2008	HELIXATE FS 2,000 UNIT VIAL	2273	1
8/14/2008	HELIXATE FS 1,000 UNITS VIAL	1047	1

North Dakota Department of Human Services
Pharmacotherapy Review
Sancuso®
September 14, 2009

I. Overview

The 5-hydroxytryptamine (5-HT_3) receptor antagonists are the most commonly prescribed medications for chemotherapy-induced nausea and vomiting (CINV) and radiation-induced nausea and vomiting (RINV). These agents are also indicated in the prevention and treatment of postoperative nausea and vomiting (PONV).

Dolasetron, granisetron, ondansetron, alosetron, and palonosetron are the currently approved 5-HT_3 antagonists in the United States. All of these agents are used in the prevention and treatment of nausea and vomiting with the exception of alosetron, which is indicated for the treatment of irritable bowel syndrome (IBS).

Sancuso is granisetron delivered via a transdermal patch system for the prevention of nausea and vomiting in patients receiving moderately and/or highly emetogenic chemotherapy regimens of up to 5 consecutive days duration. The granisetron patch achieves a similar exposure to that of a 2 mg oral dose and provides continuous delivery of granisetron over 6 days. The patch may have utility in treating chemotherapy-induced nausea and vomiting where prolonged drug delivery is advantageous.

II. Current Treatment Guidelines

Society for Ambulatory Anesthesia Guidelines for the Management of Postoperative Nausea and Vomiting, 2007

1. Recommended first- and second-line pharmacologic antiemetics for PONV prophylaxis in adults include the 5-HT_3 receptor antagonists, steroids, phenothiazines, phenylethylamine, butyrophenones, antihistamines and anticholinergics.
2. These antiemetics are recommended for patients at moderate to severe risk for PONV.
3. PONV prevention is recommended in a subset of patients, but current evidence does not support giving prophylactic antiemetics to all patients who undergo surgical procedures.
4. With more inexpensive generics becoming available, properly conducted studies need to be done to support more universal use of prophylactic antiemetics.

ASPAN'S Evidence-Based Clinical Practice Guideline for the Prevention and/or Management of PONV/PDNV (Postdischarge nausea and vomiting), 2006

1. PONV Prophylaxis Pharmacologic Recommendations* - Dexamethasone (Class I, Level A), 5-HT_3 receptor antagonists (Class I, Level A), H1 receptor blockers (Class I, Level A), Scopolamine patch (Class I, Level A), Droperidol (consider black box warning) (Class IIa, Level A), Neurokinin-1 (NK1) antagonists (Class IIb, Level B)

2. PONV Rescue Recommendations* - 5-HT_3 receptor antagonist (Class I, Level A), H1 receptor blockers (Class I, Level A), droperidol (Class IIa, Level A); late considerations may include (Class IIa, Level C) low dose promethazine, prochlorperazine, or metoclopramide; and NK1 antagonists (Class IIb, Level B).

3. PDNV Recommendations*
   - Administer prophylactic antiemetics in high-risk patients (Class I, Level A)
   - Consider administration of dexamethasone to high-risk patients if not administered pre- or intraoperatively (Level IIa, Class C)
   - Consider scopolamine patch (may be left on for as long as 24 hours (Class IIa, Level C)
   - Rescue treatment may include ondansetron dissolving tablets (Class I, Level C), promethazine suppository or tablets (Class I, Level C)

*based on Stetler and colleagues evidence-rating scale.

III. Pharmacokinetics

Following a 7-day application of Sancuso in 24 healthy subjects, high inter-subject variability in system exposure was observed. Maximal concentration was reached at approximately 48 hours (range: 24-168 hours) following patch application. Mean C_{max} was 5.0 ng/mL and mean AUC was 527 ng-hr/mL.

- Distribution – plasma protein binding is approximately 65%.

- Metabolism – involves N-demethylation and aromatic ring oxidation followed by conjugation.

- Elimination – clearance is predominantly by hepatic metabolism.

- Subpopulations – there is evidence to suggest that female subjects had higher granisetron concentrations than males following patch application. However, no statistically significant difference in clinical efficacy outcome was observed between genders.

IV. Warnings/Precautions

1. Gastrointestinal – the use of granisetron in patients may mask a progressive ileus and/or gastric distention caused by the underlying condition.

2. Skin Reactions – application site reactions reported were generally mild in intensity and did not lead to discontinuation of use. The incidence of reactions was comparable with placebo. If severe reactions, the patch must be removed.

3. Exposure to Sunlight – granisetron may be affected by direct natural or artificial sunlight. Patients must be advised to cover the patch application site if there is a risk of exposure to sunlight throughout the period of wear and for 10 days following its removal because of a potential skin reaction.

V. Drug Interactions

No clinically relevant drug interactions have been reported in clinical studies with Sancuso.

VI. Adverse Reactions

Incidence of Adverse Reactions in Double-Blind, Active Comparator Controlled Studies in Cancer Patients Receiving Chemotherapy (Events ≥ 3% in either group)

Reaction	Sancuso TDS n=404	Oral Granisetron n=406
Constipation	5.4	3.0
Headache	0.7	3.0

VII. Dosage and Administration

The transdermal system (patch) should be applied to clean, dry, intact healthy skin on the upper outer arm a minimum of 24 hours before chemotherapy. The patch may be applied up to a maximum of 48 hours before chemotherapy as appropriate. Remove the patch a minimum of 24 hours after completion of chemotherapy. The patch can be worn for up to 7 days depending on the duration of the chemotherapy regimen.

VIII. Cost Comparisons

Cost of therapy differs significantly between oral doses of the currently available generic 5-HT_3 receptor antagonists and Sancuso. Sancuso 3.1 mg per 24 hours costs approximately $350 dollars a patch. Ondansetron, on the other hand, costs between 2 dollars and 7 dollars per dose, and granisetron costs between 20 dollars and 40 dollars a dose.

IX. Efficacy

The effectiveness of Sancuso in the prevention of chemotherapy-induced nausea and vomiting (CINV) was evaluated in a Phase 3 randomized, parallel group, double-blind, double-dummy study conducted in the U.S. and abroad. The study compared the efficacy, tolerability and safety of Sancuso with that of 2 mg oral granisetron once daily in the prevention of nausea and vomiting in a total of 641 patients receiving multi-day chemotherapy. The patch was applied 24-48 hours before the anticancer drugs were started and continued for 7 days. The 2 mg granisetron were given one hour before cancer chemotherapy on each treatment day. The primary endpoint of the trial was no vomiting and/or retching, no more than mild nausea and no rescue medication. The endpoint was achieved in 60.2% of patients who received the transdermal granisetron and 64.8% of those who received the oral granisetron.

X. Conclusion

Sancuso is a 5-HT_3 receptor antagonist indicated for the prevention of nausea and vomiting in patients receiving moderately and/or highly emetogenic chemotherapy for up to 5 consecutive days. Because of expense and the lack of guidelines suggesting transdermal granisetron as an option for first line therapy, Sancuso represents a suitable alternative for patients unable to take oral medications or patients who have failed therapy with at least one generic 5-HT_3 receptor antagonist.

References:

1. Wolters Kluwer Health, Inc, ed. Drug Facts and Comparisons. St. Louis, MO. 2009
2. Sancuso® [package insert]. Bedminster, NJ: ProStrakan, Inc.; August 2008.
3. Gan, T. Society for Ambulatory Anesthesia Guidelines for the Management of Postoperative Nausea and Vomiting. Anesth Analg 2007;105:1615-28.
4. American Society of PeriAnesthesia Nurses. ASPAN'S Evidence-Based Clinical Practice Guideline for the Prevention and/or Management of PONV/PDNV. Journal of PeriAnesthesia Nursing. Vol 21, No 4(August), 2006; pp 230-250.
5. Comparison of antiemetics. Pharmacist's Letter/Prescriber's Letter 2008;24(11):241104.
6. Ignoffo, Robert. American Society of Health-System Pharmacists, Inc: Current research on PONV/PDNV: Practical implications for today's pharmacist. Am J Health-Syst Pharm. 2009; 66(Suppl 1):S19-24.
7. Howell, J. J Oncol Pharm Pract: Pharmacokinetics of a granisetron transdermal system for the treatment of chemotherapy-induced nausea and vomiting. 2009;Mar20.

HEALTH INFORMATION DESIGNS

Prior Authorization Vendor for ND Medicaid

Sancuso Prior Authorization

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Sancuso must be unable to take oral medications.

Note:

- ***Dolasetron, oral granisetron, and ondansetron do not require PA.***
- ***Patients must be unable to take oral medications.***
- ***Patients must fail therapy on ondansetron or oral granisetron before a PA may be granted.***

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Prescriber Name			
Prescriber Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ **Sancuso**	**Diagnosis for this request:**		
Qualifications for coverage:			
□ FAILED MEDICATION	START DATE: END DATE:	DOSE: FREQUENCY:	
□ PATIENT UNABLE TO TAKE ORAL MEDICATIONS			
Prescriber Signature		Date	

Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
PHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Pharmacotherapy Review
Relistor®
September 14, 2009

I. Overview

Use of opioids induces slowing of gastrointestinal motility and transit. Constipation is the most frequent side effect associated with long term opioid therapy. Treatment options for opioid-induced constipation may be as simple as changing diet, exercise habits and increasing fluid intake or as complicated as requiring additional medications/laxatives.

Relistor is indicated for the treatment of opioid-induced constipation in patients with advanced illness who are receiving palliative care, when response to laxative therapy has not been sufficient.

II. Pharmacokinetics

Following subcutaneous administration, methylnaltrexone is absorbed rapidly with peak concentrations achieved at approximately 0.5 hours. Peak plasma concentration and area under the plasma concentration-time curve increase in a dose-proportional manner. Methylnaltrexone is 11% to 15.3% bound to human plasma proteins. Methylnaltrexone is eliminated primarily as the unchanged drug. Approximately half of the dose is excreted in the urine and somewhat less in feces. The terminal half-life is approximately 8 hours.

III. Contraindications/Warnings/Precautions

- Relistor is contraindicated in patients with known or suspected mechanical gastrointestinal obstruction.
- If severe or persistent diarrhea occurs during treatment, advise patients to discontinue therapy.
- Use of Relistor has not been studied in patients with peritoneal catheters.

IV. Drug Interactions

Methylnaltrexone is a weak inhibitor of cytochrome P450 2D6 (CYP2D6) *in vitro*. It was not shown to affect the *in vivo* metabolism of dextromethorphan, a CYP2D6 substrate.

V. Drug Abuse and Dependence

Relistor is a peripherally-acting mu-opioid receptor antagonist with no known risk of abuse or dependency. Relistor is not a controlled substance.

VI. Adverse Reactions

Double-Blind, Placebo-Controlled Clinical Studies of all Doses of Relistor

Adverse Reaction	Relistor n=165	Placebo n=123
Abdominal pain	28.5%	9.8%
Flatulence	13.3%	5.7%
Nausea	11.5%	4.9%
Dizziness	7.3%	2.4%
Diarrhea	5.5%	2.4%
Hyperhidrosis	6.7%	6.5%

VII. Dosage and Administration

Relistor is administered as a subcutaneous injection. The usual schedule is one dose every other day, as needed, but no more frequently than one dose in a 24-hour period. The recommended dose is 8 mg for patients weighing 38 to less than 62 kg or 12 mg for patients weighing 62 to 114 kg. Patients whose weight falls outside of these ranges should be dosed at 0.15 mg/kg.

VIII. Cost Comparisons

Traditional laxatives can cost as little as $2 per day compared to $75 for a dose of Relistor.

IX. Efficacy

There is no data comparing traditional laxatives with methylnaltrexone. In Phase III studies, a laxation response was seen within four hours of the first dose in almost one-half of patients with opioid-induced constipation who hadn't had a bowel movement for at least 48 hours or fewer than three bowel movements in the previous week. This is compared to around 15% of patients who had a response with placebo. The median time to laxation was 30 minutes.

For treatment of constipation caused by opioid therapy, stimulant laxatives, osmotic laxatives, saline laxatives, enemas, and manual disimpaction are options. Data is lacking to support the use of one laxative or combination of laxatives over another in palliative care patients.

X. Conclusion

Opioid-induced gastrointestinal side effects are often easy to manage. Although many pharmacotherapeutic agents are available to treat constipation, few randomized, placebo-controlled studies have been conducted in terminally ill patients. Constipation prophylaxis (e.g., fiber, fluids, exercise) may be helpful but in most cases is not sufficient for patients receiving palliative care. Because the cost effectiveness and clinical benefit compared to other laxatives are uncertain, consider Relistor for those patients who have not obtained adequate relief of narcotic-related constipation with traditional treatment modalities.

References:

1. Wolters Kluwer Health, Inc, ed. Drug Facts and Comparisons. St. Louis, MO. 2009
2. Relistor® [package insert]. Philadelphia, PA: Wyeth Pharmaceuticals, Inc.; June 2009.

HEALTH INFORMATION DESIGNS

Prior Authorization Vendor for ND Medicaid

Relistor Prior Authorization

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Relistor must have advanced illness requiring palliative care with a diagnosis of opioid-induced constipation.

- **Polyethylene glycol powder is covered without a prior authorization.**

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Prescriber Name			
Prescriber Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ **Relistor**	**Diagnosis for this request:**		
Qualifications for coverage:			
□ FAILED MEDICATION	START DATE: END DATE:	DOSE: FREQUENCY:	
□ PATIENT HAS ADVANCED ILLNESS REQUIRING PALLIATIVE CARE			
Prescriber Signature		Date	

Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
PHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Pharmacotherapy Review
Nuvigil®
September 14, 2009

I. Overview

Nuvigil (armodafinil) is the active R-isomer of Provigil (modafinil). Nuvigil was approved by the FDA in June of 2007 and just recently became available in June of 2009. Nuvigil is indicated to improve wakefulness in patients with excessive sleepiness associated with obstructive sleep apnea/hypopnea syndrome (OSAHS), narcolepsy and shift work sleep disorder (SWSD).

II. Pharmacokinetics

Nuvigil is readily absorbed after oral administration. Peak plasma concentrations are attained at approximately 2 hours in the fasted state. Time to reach peak concentration may be delayed by approximately 2-4 hours in the fed state. The terminal half-life is approximately 15 hours.

III. Warnings

- Serious rash, including Stevens-Johnson Syndrome
- Angioedema and anaphylactoid reactions
- Multi-organ Hypersensitivity Reactions
- Persistent Sleepiness
- Psychiatric Symptoms

IV. Precautions

- Nuvigil should be used only in patients who have had a complete evaluation of their excessive sleepiness, and in whom a diagnosis of either narcolepsy, OSAHS, and/or SWSD has been made in accordance with ICSD or DSM diagnostic criteria.
- In OSAHS, Nuvigil is indicated as an adjunct to standard treatment(s) for the underlying obstruction.
- Although Nuvigil has not been shown to produce functional impairment, any drug affecting the CNS may alter judgment, thinking or motor skills.
- Nuvigil has not been evaluated or used to any appreciable extent in patients with a recent history of myocardial infarction or unstable angina, and such patients should be treated with caution.
- The effectiveness of steroidal contraceptives may be reduced when used with Nuvigil and for one month after discontinuation of therapy.
- The blood levels of cyclosporine may be reduced when used with Nuvigil.
- In patients with severe hepatic impairment, with or without cirrhosis, Nuvigil should be administered at a reduced dose.

V. Drug Interactions

Due to the partial involvement of CYP3A enzymes in the metabolic elimination of armodafinil, coadministration of potent inducers of CYP3A4/5 (e.g., carbamazepine, phenobarbital, and rifampin) or inhibitors of CYP3A4/5 (e.g., ketoconazole, erythromycin) could alter the plasma levels of armodafinil.

In vitro data demonstrated that armodafinil shows a weak inductive response for CYP1A2 and possibly CYP3A activities in a concentration related manner and demonstrated that CYP2C19 activity is reversibly inhibited by armodafinil. However, the effect on CYP1A2 activity was not observed clinically in an interaction study performed with caffeine.

Chronic administration of Nuvigil resulted in moderate induction of CYP3A activity. Hence, the effectiveness of drugs that are substrates for CYP3A enzymes (e.g., cyclosporine, ethinyl estradiol, midazolam, and triazolam) may be reduced after initiation of concurrent treatment with Nuvigil.

Administration of Nuvigil resulted in moderate inhibition of CYP2C19 activity. Hence, dosage reduction may be required for some drugs that are substrates for CYP2C19 (e.g., phenytoin, diazepam, propranolol, omeprazole and clomipramine) when used concurrently with Nuvigil.

VI. Adverse Reactions

Incidence > 1% of Treatment-Emergent Adverse Experiences in Parallel-Group, Placebo-Controlled Clinical Trials in OSAHS, Narcolepsy, and SWSD with Nuvigil (150mg and 250mg)

Adverse Effect	Nuvigil n=645	Placebo n=445
Palpitations	2	1
Nausea	7	3
Diarrhea	4	2
Dry Mouth	4	1
Dyspepsia	2	0
Abdominal Pain Upper	2	1
Constipation	1	0
Vomiting	1	0
Loose Stools	1	0
Fatigue	2	1
Thirst	1	0
Influenza-Like Illness	1	0
Pain	1	0
Pyrexia	1	0
Seasonal Allergy	1	0
Gamma-Glutamyltransferase Increased	1	0
Heart Rate Increased	1	0
Anorexia	1	0
Decreased Appetite	1	0
Headache	17	9
Dizziness	5	2
Disturbance in Attention	1	0
Tremor	1	0

Adverse Effect	Nuvigil n=645	Placebo n=445
Migraine	1	0
Paraesthia	1	0
Insomnia	5	1
Anxiety	4	1
Depression	2	0
Agitation	1	0
Nervousness	1	0
Depressed Mood	1	0
Polyuria	1	0
Dyspnea	1	0
Rash	2	0
Contact Dermatitis	1	0
Hyperhydrosis	1	0

VII. Dosage and Administration

Obstructive Sleep Apnea/Hypopnea Syndrome (OSAHS) and Narcolepsy – The recommended dose of Nuvigil for patients with OSAHS or narcolepsy is 150 mg or 250 mg given as a single dose in the morning. In patients with OSAHS, doses up to 250 mg/day, given as a single dose, have been well tolerated, but there is no consistent evidence that this dose confers additional benefit beyond that of the 150 mg/day dose.

Shift Work Sleep Disorder (SWSD) – The recommended dose of Nuvigil for patients with SWSD is 150 mg given daily approximately 1 hour prior to the start of their work shift.

VIII. Cost Comparisons

At treatment doses, Nuvigil will cost less than Provigil. This could be because the pricing for Provigil was increased twice in 2008. The first increase was about 18% and the second about 12%.

IX. Efficacy

Nuvigil has not been tested against Provigil in clinical efficacy trials.

X. Conclusion

Because there is a lack of clinical evidence that suggests significant differences between Nuvigil and Provigil, and because the patent will soon expire on Provigil offering cheaper generic alternatives, third party payors may find it beneficial to maintain Provigil market share until its patent expires.

References:

1. Wolters Kluwer Health, Inc, ed. Drug Facts and Comparisons. St. Louis, MO. 2009
2. Nuvigil® [package insert]. Frazer, PA: Cephalon, Inc.; July 2008.
3. Nuvigil (armodanifil). Pharmacist's Letter/Prescriber's Letter 2009;25(7):250710.

HEALTH INFORMATION DESIGNS

Prior Authorization Vendor for ND Medicaid

Nuvigil Prior Authorization

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Nuvigil must suffer from excessive sleepiness associated with obstructive sleep apnea/hypopnea syndrome, narcolepsy, or shift work disorder.

- **Provigil is covered without a prior authorization.**

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Prescriber Name			
Prescriber Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ **Nuvigil**	**Diagnosis for this request:**		
Qualifications for coverage:			
□ FAILED MEDICATION	START DATE: END DATE:	DOSE: FREQUENCY:	
□ EXCESSIVE SLEEPINESS ASSOCIATED WITH OBSTRUCTIVE SLEEP APNEA/HYPOPNEA SYNDROME □ NARCOLEPSY □ SHIFT WORK SLEEP DISORDER			
Prescriber Signature		Date	

Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
PHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Pharmacotherapy Review
Nucynta®
September 14, 2009

I. Overview

Pain is the leading public health problem in the United States and the most common symptom that results in more than 50 million lost workdays each year. The cost of pain, including medical bills and lost workdays, is estimated at $100 billion per year. More than 25 million Americans experience acute pain each year as a result of injuries or surgery.

Nucynta was approved by the FDA in November 2008 and recently became available on the market. Nucynta is a C-II centrally-acting synthetic opioid analgesic approved for the relief of moderate to severe acute pain in patients 18 years of age or older.

II. Current Treatment Guidelines

1. **Institute for Clinical Systems Improvement: Assessment and management of acute pain.**
    - Intensity of pain is assessed prior to initiation of appropriate treatment and continually reassessed throughout duration of treatment.
    - Determine the mechanism of pain (i.e., somatic, visceral, neuropathic) based on the physical examination and detailed history.
    - Patients often experience more than one type of pain.
    - Somatic pain is well-localized and may be responsive to acetaminophen, cold packs, corticosteroids, localized anesthetic, non-steroidal anti-inflammatory drugs (NSAIDs), opioids, and tactile stimulation.
    - Visceral pain is more generalized and is most responsive to opioid treatment.
    - Neuropathic pain may be resistant to opioid therapy and consideration should be given to adjuvant therapy such as tricyclic antidepressants and anticonvulsants.
    - While the emphasis of this guideline is on pharmacologic therapy, multimodal treatment approaches are important to consider because patient satisfaction is high when non-pharmacologic approaches are provided.

2. **World Health Organization Pain Relief Ladder**
    - Step 1-Pain occurs: Non-opioids (NSAIDs and acetaminophen) +/- Adjuvant
    - Step 2-Pain persisting or increasing: Opioid for mild to moderate pain (codeine, tramadol, etc.) +/- Non-opioids +/- Adjuvant

- Step 3-Pain persisting or increasing: Opioid for moderate to severe pain (morphine, oxycodone, etc.) +/- Non-opioids +/- Adjuvant
  ***because the analgesic potency of tapentadol is between that of morphine and tramadol, tapentadol would be considered a step three agent.**

III. Pharmacology

Tapentadol is a centrally-acting synthetic analgesic. Although its exact mechanism is unknown, analgesic efficacy is thought to be due to mu-opioid agonist activity and the inhibition of norepinephrine reuptake.

IV. Contraindications

- Impaired pulmonary function (significant respiratory depression, acute or severe bronchial asthma or hypercapnia in unmonitored settings or the absence of resuscitative equipment)
- Paralytic ileus
- Concomitant use with monoamine oxidase inhibitors (MAOI) or use within 14 days

V. Warnings/Precautions

- Respiratory Depression: Increased risk in elderly, debilitated patients, those suffering from conditions accompanied by hypoxia, hypercapnia, or upper airway obstruction.
- CNS Depression: Additive CNS depressive effects when used in conjunction with alcohol, other opioids, or illicit drugs.
- Elevation of intracranial pressure: May be markedly exaggerated in the presence of head injury/other intracranial lesions.
- Misuse and Abuse – Monitor patients closely for signs of abuse and addiction.
- Impaired mental/physical abilities: Caution must be used with potentially hazardous activities.
- Seizures: Use with caution in patients with a history of seizures.
- Serotonin Syndrome: Potentially life-threatening condition could result from concomitant serotonergic administration.

VI. Drug Interactions

- Use Nucynta with caution in patients currently using specified centrally-acting drugs or alcohol.
- Do not use Nucynta in patients currently using or within 14 days of using a MAOI.

VII. Drug Abuse and Dependence

Nucynta contains tapentadol, a mu-opioid agonist and is a Schedule II controlled substance. Nucynta has an abuse potential similar to hydromorphone, can be abused and is subject to criminal diversion.

VIII. Adverse Events

Treatment-Emergent Adverse Events Reported by ≥ 1% of Nucynta Treated Patients in Seven Clinical Studies

Adverse Event	Nucynta 21mg – 120mg n=2,178 %	Placebo n=619 %
Nausea	30	13
Vomiting	18	4
Constipation	8	3
Dry mouth	4	<1
Dyspepsia	2	<1
Fatigue	3	<1
Feeling hot	1	<1
Nasopharyngitis	1	<1
Upper respiratory tract infection	1	<1
Urinary tract infection	1	<1
Decreased appetite	2	0
Arthralgia	1	<1
Dizziness	24	8
Somnolence	15	3
Tremor	1	<1
Lethargy	1	<1
Insomnia	2	<1
Confusional state	1	0
Abnormal dreams	1	<1
Anxiety	1	<1
Pruritus	5	1
Hyperhidrosis	3	<1
Pruritus generalized	3	<1
Rash	1	<1
Hot flush	1	<1

IX. Dosage and Administration

The dose of Nucynta is 50 mg, 75 mg, or 100 mg every 4 to 6 hours depending upon pain intensity. On the first day of dosing, the second dose may be administered as soon as one hour after the first dose, if adequate pain relief is not attained with the first dose. Subsequent dosing is 50 mg, 75 mg, or 100 mg every 4 to 6 hours and should be adjusted to maintain adequate analgesia with acceptable tolerability. Daily doses greater than 700 mg on the first day of therapy and 600 mg on subsequent days have not been studied and are not recommended.

VIII. Cost Comparisons

Nucynta is available in a 50 mg strength (EAC $1.91/tablet), 75 mg strength (EAC $2.24/tablet) and 100 mg strength (EAC $2.98/tablet).

IX. Efficacy

The FDA approved Nucynta based on results from two randomized, double-blind, placebo and active-controlled clinical trials of patients suffering from moderate to severe pain as a result of first metatarsal bunionectomy or end-stage degenerative joint disease. In the studies, patients treated with Nucynta 50 mg, 75 mg, or 100 mg every four to six hours were found to have significantly greater reduction in pain compared to placebo based on the sum of pain intensity difference values over 48 hours (bunionectomy) and five days (degenerative joint disease).

X. Conclusion

Nucynta is a new centrally-acting synthetic opioid with similar mechanism of action and side effect profile as tramadol. It has been shown to be similarly efficacious as low-dose oxycodone in the treatment of moderate to severe acute pain. Since Nucynta is significantly more expensive than generic opioids, tapentadol might be useful in patients who cannot tolerate other opioids due to gastrointestinal side effects.

References:

1. Wolters Kluwer Health, Inc, ed. Drug Facts and Comparisons. St. Louis, MO. 2009
2. Nucynta® [package insert]. Gurabo, PR: Ortho-McNeil-Janssen Pharmaceuticals, Inc.; March 2009.
3. American Pain Society Press Room. Media Backgrounder, The American Pain Society; www.ampainsoc.org. Accessed online July, 2009.
4. New Drug: Nucynta (tapentadol). Pharmacist's Letter/Prescriber's Letter 2009;25(7):250711.
5. Institute for Clinical Systems Improvement (ICSI). Assessment and management of **acute pain**. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2008 Mar. 58 p

HEALTH INFORMATION DESIGNS

Prior Authorization Vendor for ND Medicaid

Nucynta Prior Authorization

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Nucynta must be unable to tolerate other opioids due to gastrointestinal side effects.

- **Oxycodone is covered without a prior authorization.**

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Prescriber Name			
Prescriber Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ **Nucynta**	**Diagnosis for this request:**		
Qualifications for coverage:			
□ FAILED MEDICATION	START DATE: END DATE:	DOSE: FREQUENCY:	
□ UNABLE TO TOLERATE OTHER OPIOIDS DUE TO GASTROINTESTINAL SIDE EFFECTS			
Prescriber Signature		Date	

Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
PHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

NORTH DAKOTA MEDICAID
RETROSPECTIVE DRUG UTILIZATION REVIEW
CRITERIA RECOMMENDATIONS
3RD QUARTER 2009

Criteria Recommendations ***Approved*** ***Rejected***

1. Milnacipran / Over-utilization _____ _____

Alert Message: The recommended dose of Savella (milnacipran) is 100 mg per day given in two divided doses. Milnacipran therapy should always begin with dosing at 12.5 mg and increase to 100 mg per day over a 1-week period. The daily dose may be increased to 200 mg per day based on individual response.

Conflict Code: ER - Overutilization

Drugs/Diseases

Util A	Util B	Util C
Milnacipran		

Max Dose: 200 mg per day

References:

Savella Prescribing Information, Jan. 2009, Cypress Bioscience, Inc.

2. Milnacipran / Nonadherence _____ _____

Alert Message: Non-adherence to the prescribed dosing regimen for Savella (milnacipran) may result in loss of therapeutic effect.

Conflict Code: LR – Non-adherence

Drugs/Diseases

Util A	Util B	Util C
Milnacipran		

Less than 75 days in 90 day review.

References:

Savella Prescribing Information, Jan. 2009, Cypress Bioscience, Inc.

3. Milnacipran / Monoamine Oxidase Inhibitors _____ _____

Alert Message: The concurrent use of Savella (milnacipran) and a monoamine oxidase inhibitor (MAOI) is contraindicated. Milnacipran has serotonin reuptake inhibitor activity and the use of this agent with a MAOI may cause a rapid, excessive accumulation of serotonin resulting in serious, sometimes, fatal reactions. Milnacipran should not be used within 14 days of discontinuing an MAOI and at least 5 days should elapse after stopping milnacipran before starting a MAOI.

Conflict Code: DD- Drug/Drug Interaction

Drugs/Diseases

Util A	Util B	Util C
Milnacipran	Isocarboxazid Tranylcypromine Phenelzine	

References:

Savella Prescribing Information, Jan. 2009, Cypress Bioscience, Inc.

4. Milnacipran / Risk of Suicide (Black Box Warning) _____ _____

Alert Message: Savella (milnacipran) is a selective serotonin and norepinephrine reuptake inhibitor (SNRI), similar to some drugs used for the treatment of depression and other psychiatric disorders. SNRIs may increase the risk compared to placebo of suicidal thinking and behavior in children, adolescents, and young adults with major depressive disorder and other psychiatric disorders. Monitor patients closely for unusual changes in behavior.

Conflict Code: TA – Therapeutic Appropriateness

Drugs/Diseases

Util A	Util B	Util C
Milnacipran		

References:

Savella Prescribing Information, Jan 20-09, Cypress Bioscience, Inc.

Facts & Comparisons, 2009 Updates.

5. Milnacipran / Uncontrolled Narrow Angle Glaucoma _____ _____

Alert Message: The use of Savella (milnacipran) is contraindicated in patients with uncontrolled narrow angle glaucoma. In clinical trials, milnacipran was associated with an increased risk of mydriasis. Milnacipran is a selective serotonin/norepinephrine reuptake inhibitor and mydriasis has been reported with other dual reuptake inhibitors agents.

Conflict Code: MC – Drug (Actual) Disease Precaution

Drugs/Diseases

Util A	Util B	Util C
Milnacipran	Narrow Angle Glaucoma	

References:

Savella Prescribing Information, Jan. 2009, Cypress Bioscience, Inc.

Facts & Comparisons, 2009 Updates.

6. Milnacipran / Serotonergic Drugs _____ _____

Alert Message: The concurrent use of Savella (milnacipran) and a serotonergic drug is not recommended. Milnacipran is a selective serotonin/norepinephrine reuptake inhibitor and concomitant therapy with other serotonergic drugs may cause accumulation of serotonin and increase the risk of serotonin syndrome (e.g., mental status changes, hypertension, vasoconstriction, and neuronal aberrations).

Conflict Code: DD- Drug/Drug Interaction

Drugs/Diseases

Util A	Util B		Util C
Milnacipran	Triptans	TCAs	
	Tramadol	Mirtazapine	
	SSRIs	Bupropion	
	SNRIs	Trazodone	
	Nefazodone	Codeine	
	Fentanyl	Zyvox	
	Lithium		

References:

Savella Prescribing Information, Jan. 2009, Cypress Bioscience, Inc.

Facts & Comparisons, 2009 Updates.

7. Milnacipran / Clonidine _____ _____

Alert Message: Concurrent use of Savella (milnacipran) and clonidine may result in the loss of blood pressure control. Clonidine acts to decrease norepinephrine (NE) release in the brain which leads to a reduction in arterial blood pressure. Milnacipran inhibits NE reuptake, thereby increasing NE levels and inhibiting the effects of clonidine.

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

Util A	Util B	Util C
Milnacipran	Clonidine	

References:
Savella Prescribing Information, Jan. 2009, Cypress Bioscience, Inc.
Facts & Comparisons, 2009 Updates.

8. Milnacipran / Seizures _____ _____

Alert Message: Savella (Milnacipran) should be used with caution in patients with a history of seizure disorders. Seizures have been reported, infrequently, in patients treated with milnacipran for disorders other than fibromyalgia.

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

Util A	Util B	Util C
Milnacipran	Seizures	
	Epilepsy	
	Convulsions	

References:
Savella Prescribing Information, Jan. 2009, Cypress Bioscience, Inc.
Facts & Comparisons, 2009 Updates.

9. Milnacipran / Hypertension _____ _____

Alert Message: Savella (milnacipran) may cause elevated blood pressure and heart rate. Monitor blood pressure and heart rate prior to initiating milnacipran therapy and periodically throughout treatment.

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

Util A	Util B	Util C
Milnacipran	Hypertension ICD-9	
	Beta Blockers	
	ACE Inhibitors	
	ARBs	
	Diuretics	
	Calcium Channel Blockers	
	Antiadrenergic Agents - Centrally Acting & Peripherally	
	Peripheral Vasodilators	

References:
Savella Prescribing Information, Jan. 2009, Cypress Bioscience, Inc.
Facts & Comparisons, 2009 Updates.

10. Febuxostat / Over utilization _____ _____

Alert Message: The recommended starting dose of Uloric (febuxostat) is 40 mg once daily and may be increased to 80 mg once daily in patients who do not achieve a serum uric acid (sUA) less than 6 mg per dL after 2 weeks with the 40 mg. Exceeding the recommended daily dose may cause a risk of adverse effects (e.g., rash, arthralgia, nausea, and liver function abnormalities).

Conflict Code: ER – Overutilization

Drugs/Diseases

Util A	Util B	Util C
Febuxostat		

Max Dose: 80 mg per day

References:

Uloric Prescribing Information, Feb. 2009, Takeda Pharmaceuticals America, Inc.

11. Febuxostat / Nonadherence _____ _____

Alert Message: Non-adherence to the prescribed dosing regimen for Uloric (febuxostat) may result in loss of therapeutic effect.

Conflict Code: LR – Underutilization

Drugs/Diseases

Util A	Util B	Util C
Febuxostat		

Less than a 75 day supply in 90 days

References:

Uloric Prescribing Information, Feb. 2009, Takeda Pharmaceuticals America, Inc.

12. Febuxostat / Azathioprine, Mercaptopurine & Theophylline _____ _____

Alert Message: Uloric (febuxostat) is contraindicated in patients being treated with drugs metabolized by xanthine oxidase (i.e., azathioprine, mercaptopurine, and theophylline). Febuxostat is a xanthine oxidase (XO) inhibitor and concurrent use of febuxostat with drugs metabolized by XO may cause substantially increased plasma concentrations of the XO metabolized drug leading to severe toxicity.

Conflict Code: DD- Drug/Drug Interaction

Drugs/Diseases

Util A	Util B	Util C
Febuxostat	Azathioprine Mercaptopurine Theophylline	

References:

Uloric Prescribing Information, Feb. 2009, Takeda Pharmaceuticals America, Inc.

13. Febuxostat / Cardiovascular Events (Warning) _____ _____

Alert Message: In clinical trials, patients treated with Uloric (febuxostat) had a higher rate of cardiovascular thromboembolic events than allopurinol-treated patients. Monitor patients for signs and symptoms of MI or stroke.

Conflict Code: TA – Therapeutic Appropriateness

Drugs/Diseases

Util A	Util B	Util C
Febuxostat		

References:

Uloric Prescribing Information, Feb. 2009, Takeda Pharmaceuticals America, Inc.

14. Febuxostat / Liver Enzyme Elevation (Warning) _____ _____

Alert Message: It is recommended that patients receiving Uloric (febuxostat) receive laboratory assessment of liver function at 2 and 4 months following initiation of febuxostat and periodically thereafter. In controlled studies, elevated transaminase elevations were observed and were the most common adverse event that led to discontinuation of the drug.

Conflict Code: TA – Therapeutic Appropriateness
Drugs/Diseases

Util A	Util B	Util C
Febuxostat		

References:
Uloric Prescribing Information, Feb. 2009, Takeda Pharmaceuticals America, Inc.

15. Zonisamide / Therapeutic Appropriateness _____ _____

Alert Message: Treatment with zonisamide can cause metabolic acidosis. Patients at greater risk for developing metabolic acidosis are those with predisposing conditions or therapies (e.g. renal disease, severe respiratory disease, diarrhea, ketogenic diet or certain drugs). The risk appears to be more frequent and severe in younger patients. Measure serum bicarbonate before starting zonisamide treatment and periodically during treatment with zonisamide, even in the absence of symptoms.

Conflict Code: TA - Therapeutic Appropriateness
Drugs/Diseases

Util A	Util B	Util C
Zonisamide		

References:
MedWatch: FDA Safety Information and Adverse Event Reporting Program, 2009.

16. Fluvoxamine / CYP3A4 Metabolized Statins _____ _____

Alert Message: Caution should be exercised when using fluvoxamine with a HMG CoA Reductase Inhibitor that is metabolized by CYP3A4 (i.e. lovastatin, simvastatin and atorvastatin). Fluvoxamine is an inhibitor of CYP3A4 metabolism and concurrent use with one of these statins may result in elevated statin level and increased risk of myopathy and rhabdomyolysis. If appropriate consider alternative therapy with fluvastatin, pravastatin or rosuvastatin which are not expected to interact with CYP 3A4 inhibitors.

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

Util A	Util B	Util C
Fluvoxamine	Lovastatin	
	Simvastatin	
	Atorvastatin	

References:
Brown CH. Overview of Drug-Drug Interactions with SSRIs. US Pharm;33(1):HS-2-HS-19.
Facts & Comparisons, 2009 Updates.
Luvox Prescribing Information, Feb. 2009, Jazz Pharmaceuticals, Inc.

17. NSAIDS / Diabetes _____ _____

Alert Message: NSAIDS should be used with caution in diabetic patients due to the increased risk of renal toxicity. Diabetes is a risk factor for renal insufficiency and the use of NSAIDs can cause a dose-dependent reduction in prostaglandin formation by the kidneys resulting in decreased renal perfusion and ischemic injury.

Conflict Code: DB – Drug/Disease and/or (Drug Inferred Disease) Precaution
Drugs/Diseases

Util A	Util B		Util C
NSAIDS	Diabetes ICD-9s	Rosiglitazone	
Celebrex	Insulins	Pioglitazone	
	Chlorpropamide	Repaglinide	
	Tolazamide	Nateglinide	
	Tolbutamide	Pramlintide	
	Glipizide	Exenatide	
	Glimepiride	Sitagliptin	
	Glyburide	Acarbose	
	Miglitol		

References:
Rifkin BD, Perazella MA. Analgesic Therapy in Patients with Chronic Kidney Disease: A Case-Based Approach. Hospital Physician May 2005: 43;13-22.
Facts & Comparisons, 2009 Updates.
FDA CDER Alert: Acetaminophen Hepatotoxicity and Nonsteroidal Anti-Inflammatory Drugs (NSAID)-related Gastrointestinal and Renal Toxicity; Letter to State Boards of Pharmacy. Jan. 2004.
Available at: http://www.fda.gov/cder/drug/analgesics/letter.htm

18. NSAIDS / Pain in Older Patients _____ _____

Alert Message: In older patients acetaminophen should be considered as initial and ongoing pharmacotherapy in the treatment of persistent pain, particularly musculoskeletal pain, owning to its demonstrated effectiveness and good safety profile. Nonselective NSAIDs and COX-2 inhibitors may be considered rarely, and with extreme caution, in highly selected individuals. All patients with moderate to severe pain, pain-related functional impairment or diminished quality of life due to pain should be considered for opioid therapy, which may be safer than long-term use of NSAIDs.

Conflict Code: TA – Therapeutic Appropriateness
Drugs/Diseases

Util A	Util B	Util C (Negating)
NSAIDs		Acetaminophen
Celebrex		Liver Failure/Hepatic Insufficiency
		Alcohol Abuse/Dependence

Age Range: 55 and older

References:
American Geriatric Society (AGS) Clinical Practice Guideline: Pharmacological Management of Persistent Pain in Older Persons. American Geriatrics Society.
Available online: http://www.americangeriatrics.org/education/final_recommendations.pdf

19. Pimozide / Citalopram & Escitalopram _____ _____

Alert Message: The concurrent use of pimozide with citalopram or escitalopram is contraindicated. Concomitant use of these agents may result in QT prolongation and life-threatening cardiac arrhythmias.

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

Util A	Util B	Util C
Pimozide	Citalopram	
	Escitalopram	

References:
Orap Prescribing Information, Jan. 2009, Gate Pharmaceuticals.
Facts & Comparisons, 2009 Updates.
Clinical Pharmacology, 2009 Gold Standard.

20. Silodosin / Over-utilization _____ _____

Alert Message: The recommended dose of Rapaflo (silodosin) is 8 mg once daily with a meal.

Conflict Code: ER - Overutilization
Drugs/Disease:

Util A	Util B	Util C (Negating)
Silodosin		Moderate to Severe Renal Failure (ICD-9s)

Max Dose: 8 mg/day
References:
Rapaflo Prescribing Information, Sept. 2008, Watson Pharmaceuticals, Inc.
Facts & Comparisons, 2009 Updates.

21. Silodosin / Over utilization - Renal Impairment _____ _____

Alert Message: The recommended maximum dose of Rapaflo (silodosin) in patients with moderate renal impairment is 4 mg once daily with a meal. Clinical pharmacology studies have shown that plasma concentrations of silodosin are approximately three times higher in patients with moderate renal impairment as compared to subjects with normal renal function. Silodosin use is contraindicated in patients with severe renal impairment. No dosage adjustment is recommended in minor renal impairment.

Conflict Code: ER - Overutilization
Drugs/Disease:

Util A	Util B	Util C (Include)
Silodosin		Moderate Renal Impairment (ICD-9s)

Max Dose: 4mg per day
References:
Rapaflo Prescribing Information, Sept. 2008, Watson Pharmaceuticals, Inc.

22. Silodosin / Contraindication _____ _____

Alert Message: Rapaflo (silodosin) is contraindicated in patients with severe renal impairment (CrCl < 30mL/min) and severe hepatic impairment (Child-Pugh score ≥ 10).

Conflict Code: MC - Drug (Actual) Disease Precaution
Drugs/Disease:

Util A	Util B	Util C
Silodosin	Severe Renal Impairment (ICD-9s)	
	Severe Hepatic Impairment (ICD-9s)	
	PhosLo	
	Renagel	
	Zemplar	

References:
Rapaflo Prescribing Information, Sept. 2008, Watson Pharmaceuticals, Inc.
Facts & Comparisons, 2009 Updates.

23. Silodosin / Potent CYP3A4 Inhibitors - Contraindication _____ _____

Alert Message: The concurrent use of Rapaflo (silodosin) with potent CYP3A4 inhibitors (e.g., ketoconazole, itraconazole, clarithromycin, and ritonavir) is contraindicated. Coadministration of silodosin with these agents may result in significant increases in silodosin plasma concentrations and increased risk of adverse effects due to the inhibition of CYP3A4-mediated metabolism of silodosin.

Conflict Code: DD – Drug/Drug Interactions
Drugs/Disease:

Util A	Util B		Util C
Silodosin	Ketoconazole	Indinavir	
	Itraconazole	Nefazodone	
	Ritonavir	Nelfinavir	
	Clarithromycin	Saquinavir	
	Atazanavir	Telithromycin	

References:
Rapaflo Prescribing Information, Sept. 2008, Watson Pharmaceuticals, Inc.
Clinical Pharmacology, 2009 Gold Standard.
Facts & Comparisons, 2009 Updates.
Drug Development and Drug Interactions: Table of Substrates, Inhibitors and Inducers. Classification of CYP3A4 Inhibitors. FDA Center for Drug Evaluation and Research. May 1, 2006. Accessed February 02, 2009.
Available at: http://www.fda.gov/cder/drug/drugInteractions/tableSubstrates.htm#PgpTransport

24. Silodosin / Moderate CYP3A4 Inhibitors - Precaution _____ _____

Alert Message: The concurrent use of Rapaflo (silodosin) with moderate CYP3A4 inhibitors (e.g., verapamil, diltiazem and erythromycin) may result in elevated silodosin concentrations due to the inhibition of CYP3A4-mediated silodosin metabolism. Monitor the patient for silodosin adverse effects when co-administering these agents.

Conflict Code: DD – Drug/Drug Interactions
Drugs/Disease:

Util A	Util B			Util C
Silodosin	Erythromycin	Amprenavir	Aprepitant	
	Verapamil	Fluconazole		
	Diltiazem	Fosamprenavir		

References:
Rapaflo Prescribing Information, Sept. 2008, Watson Pharmaceuticals, Inc.
Clinical Pharmacology, 2009 Gold Standard.
Facts & Comparisons, 2009 Updates.
Drug Development and Drug Interactions: Table of Substrates, Inhibitors and Inducers. Classification of CYP3A4 Inhibitors. FDA Center for Drug Evaluation and Research. May 1, 2006. Accessed February 02, 2009.
Available at: http://www.fda.gov/cder/drug/drugInteractions/tableSubstrates.htm#PgpTransport

25. Silodosin / Alpha-Blockers _____ _____

Alert Message: Rapaflo (silodosin), an alpha-1 adrenergic receptor antagonist, should not be used in combination with other alpha-1 blockers. The concurrent use of these agents may have additive effects on blood pressure and increase the risk of adverse effects.

Conflict Code: DD – Drug/Drug Interactions
Drugs/Disease:

Util A	Util B		Util C
Silodosin	Prazosin	Tamsulosin	
	Terazosin	Alfuzosin	
	Doxazosin		

References:
Rapaflo Prescribing Information, Sept. 2008, Watson Pharmaceuticals, Inc.
Clinical Pharmacology, 2009 Gold Standard.
Facts & Comparisons, 2009 Updates.

26. Silodosin / Potent P-glycoprotein Inhibitors _____ _____

Alert Message: The concurrent use of Rapaflo (silodosin) with potent P-glycoprotein inhibitors (e.g., ketoconazole, itraconazole, cyclosporine, and quinidine) is not recommended. Silodosin is a P-gp substrate and inhibition of this efflux transporter system may result in significant increases in silodosin exposure.

Conflict Code: DD – Drug/Drug Interactions
Drugs/Disease:

Util A	Util B		Util C
Silodosin	Ketoconazole	Nelfinavir	
	Itraconazole	Saquinavir	
	Cyclosporine	Verapamil	
	Ritonavir		
	Quinidine		

References:
Rapaflo Prescribing Information, Sept. 2008, Watson Pharmaceuticals, Inc.
Clinical Pharmacology, 2009 Gold Standard.
Facts & Comparisons, 2009 Updates
Drug Development and Drug Interactions: Table of Substrates, Inhibitors and Inducers. P-gp Transporters. FDA Center for Drug Evaluation and Research. May 1, 2006. Accessed February 02, 2009.
Available at: http://www.fda.gov/cder/drug/drugInteractions/tableSubstrates.htm#PgpTransport

27. Silodosin / Other Antihypertensive Agents _____ _____

Alert Message: Exercise caution when Rapaflo (silodosin) is used concurrently with antihypertensive agents. The concurrent use of these agents may result in the increased incidence of dizziness and orthostatic hypotension. Monitor patients for adverse effects.

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

Util A	Util B	Util C
Silodosin	Beta-Blockers	
	Calcium Channel Blockers	
	Diuretics	
	ACEIs	
	ARBs	
	Antiadrenergic Agents	

References:
Rapaflo Prescribing Information, Sept. 2008, Watson Pharmaceuticals, Inc.
Facts & Comparisons, 2009 Updates.
Clinical Pharmacology, 2009 Gold Standard.

28. Silodosin / PDE-5 Inhibitors _____ _____

Alert Message: Exercise caution when Rapaflo (silodosin) is used concurrently with PDE-5 inhibitors (i.e., sildenafil, tadalafil, and vardenafil). In clinical studies patients receiving silodosin and a PDE-5 inhibitor had a higher total number of positive orthostatic test results compared to patients on silodosin alone.

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

Util A	Util B	Util C
Silodosin	Sildenafil	
	Tadalafil	
	Vardenafil	

References:
Rapaflo Prescribing Information, Sept. 2008, Watson Pharmaceuticals, Inc.
Facts & Comparisons, 2009 Updates.
Clinical Pharmacology, 2009 Gold Standard.

29. ACE Inhibitors / ARBs _____ _____

Alert Message: The concurrent use of an ACEI (angiotensin converting enzyme inhibitor) with an ARB (angiotensin II receptor blocker) may result in significant adverse effects (e.g. hyperkalemia, hypotension, and renal impairment) without improving patient outcomes. Consider switching the patient to a safer recommended combination therapy. If an ACEI/ARB combination therapy is unavoidable closely monitor the patient for adverse effects.

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

Util A		Util B		Util C
Enalapril	Lisinopril	Losartan	Eprosartan	
Captopril	Moexipril	Valsartan	Olmesartan	
Benazepril	Perindopril	Irbesartan		
Fosinopril	Quinapril	Candesartan		
Trandolapril	Ramipril	Telmisartan		

References:
Yusuf S, Teo KK, Pogue J, et al for the ONTARGET investigators. Telmisartan, ramipril, or both in patients at high risk for vascular events. N Engl J Med 2008: 358:1547-1559.
Phillips CO, Kashani A, Ko D, et al. Adverse Effects of Combination Angiotension II Receptor Blockers Plus Angiotension-Converting Enzyme Inhibitors for Left Ventricular Dysfunction. Arch Intern Med. 2007;167(18):1930-1936.
Mann JFE, Schmieder RE, McQueen M, et al. Renal outcomes with telmisartan, ramipril, or both in people at high vascular risk (the ONTARGET study): a multicentre, randomized, double-blind controlled trial. *Lancet* 2008; 372:547-553.
The Seventh Report of the Joint National Committee on Prevention, Detection,\Evaluation, and Treatment of High Blood Pressure: The JNC 7 Report. JAMA. 2003;289(19):2560-71.
Jessup M, Abraham WT, Casey DE., et al., Focused Update: ACCF/AHA Guidelines for the Diagnosis and Management of Heart Failure in Adults. A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. Circulation. 2009 Mar 26; doi 10.1161/CIRCULATIONAHA.109.192064.

DUR Board Meeting
December 7, 2009

Pioneer Room
State Capitol

1pm

north dakota
department of
human services

North Dakota Medicaid
DUR Board Meeting
Agenda
Pioneer Room
State Capitol
December 7, 2009
1pm

1. Administrative items
    - Travel vouchers
    - Board members sign in

2. Old business

• Review and approval of minutes of 09/14/09 meeting	Chairman
• Budget update	Brendan
• Second review of Hemophilia	HID
• Second review of Sancuso	HID
• Second review of Relistor	HID
• Second review of Nuvigil	HID
• Second review of Nucynta	HID
• Yearly PA review	HID
o Solodyn	
o Oracea	
o Oxycontin	
o Short-acting beta-agonists	
o Vusion	

3. New business

• Review of Top Drugs and Drug Classes	HID
• Review of Stimulant Utilization in children ≤ 5 years of age	HID
• Criteria recommendations	Brendan
• Upcoming meeting date/agenda	Chairman

4. Adjourn — Chairman

Please remember to turn all cellular phones and pagers to silent mode during the meeting.

Drug Utilization Review (DUR) Meeting Minutes
September 14, 2009

Members Present: Patricia Churchill, Norman Byers, Carrie Sorenson, Greg Pfister, Kim Krohn, Jeffrey Hostetter, John Savageau, Carlotta McCleary, David Clinkenbeard, Steve Irsfeld, Russ Sobotta, James Carlson, Todd Twogood
Members Absent: Cheryl Huber, Leann Ness
Medicaid Pharmacy Department: Brendan Joyce, Gary Betting
HID Staff Present: Candace Rieth

Chair, J. Hostetter called the meeting to order at 1:00 pm. Chair, J. Hostetter asked for a motion to approve the minutes from the June meeting. P. Churchill moved that the minutes be approved and T. Twogood seconded the motion. Chair, J. Hostetter called for a voice vote to approve the minutes. The motion passed with no audible dissent.

New Members
Russell Sobotta, representing PhRMA; James Carlson, representing GPhA; and David Clinkenbeard, representing the ND Medical Association, are the new members that have been appointed to the Board. Chair, J. Hostetter asked that all DUR Board members introduce themselves to the new members.

Budget Update
B. Joyce had no new information to present regarding the budget.

Hemophilia Review
The Board reviewed utilization of factors in the Medicaid population. Specialists in the field, pharmacist Mark Plencner and physician Nathan Kobrinsky, participated in the discussion via teleconference. There was no public comment. T. Twogood made a motion that a prior authorization is placed on factors with criteria that includes:

1. Proof of an accredited specialist involved in therapy
2. Date of last appointment with specialist
3. Specialist's contact information

G. Pfister seconded the motion. A prior authorization form and criteria will be presented at the December meeting.

Uloric Second Review
At the June meeting a motion was made to prior authorize Uloric. This is the second review. G. Pfister made a motion to include the dose of allopurinol (greater than or equal to 300mg) that should be tried before requesting a prior authorization for Uloric. C. Sorenson seconded the motion. There was no public comment. Chair, J. Hostetter called for a voice vote on the amendment. Motion passed with no audible dissent. Chair, J. Hostetter called for a voice vote on the original motion. Motion passed with no audible dissent.

Moxatag Second Review
At the June meeting a motion was made to place Moxatag on prior authorization. This is the second review. There was no public comment. Chair, J. Hostetter called for a voice vote on the original motion. Motion passed with no audible dissent.

Targeted Immune Modulators Second Review
At the June meeting a motion was made to place targeted immune modulators on prior authorization. This is the second review. There was no public comment. Chair, J. Hostetter called for a voice vote on the original motion. Motion passed with no audible dissent.

Yearly PA Review
The Board reviews products annually that have previously been placed on prior authorization. This allows the Board a chance to update the prior authorization forms and criteria. Dispense as Written (DAW), Amrix, Xenical, Zanaflex capsules, and Ketek forms and criteria were reviewed. S. Irsfeld made a motion to include an informational bullet on the DAW form that states "not allowed for drugs with authorized generics." N. Byers seconded the motion. Chair, J. Hostetter called for a voice vote on the motion. Motion passed with no audible dissent.

Sancuso Review
C. Rieth reviewed Sancuso with Board members. There was no public comment. N. Byers made a motion to place Sancuso on prior authorization. P. Churchill seconded the motion. This topic will be brought up again at the next Board meeting for finalization.

Relistor Review
C. Rieth reviewed Relistor with Board members. There was no public comment. J. Hostetter made a motion to place Relistor on prior authorization with the following criteria:

1. Unable to tolerate oral medications *or*
2. Failed two oral medications

N. Byers seconded the motion. This topic will be brought up again at the next Board meeting for finalization.

Nuvigil Review
B. Joyce reviewed Nuvigil with Board members. There was no public comment. P. Churchill made a motion to place Nuvigil on prior authorization. G. Pfister seconded the motion. This topic will be brought up again at the next Board meeting for finalization.

Nucynta Review
C. Rieth reviewed Nucynta with the Board members. There was no public comment. N. Byers made a motion to place Nucynta on prior authorization. G. Pfister seconded the motion. This topic will be brought up again at the next Board meeting for finalization.

Criteria Recommendations
The recommended RDUR criteria enclosed in the packet were developed from product information provided by the manufacturers and usually are consistent with new indications, new drugs added, new warnings, etc. These proposed criteria will be added to the current set of criteria, and will be used in future DUR cycles. J. Savageau moved to approve the new criteria and N. Byers seconded the motion. Chair, J. Hostetter called for a voice vote. The motion passed with no audible dissent.

The next DUR board meeting will be held December 7, 2009. N. Byers made a motion to adjourn the meeting. T. Twogood seconded. The motion passed with no audible dissent. Chair J. Hostetter adjourned the meeting at 2:45 pm.

BLOOD FACTOR PRODUCTS PA FORM

Prior Authorization Vendor for ND Medicaid

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for blood factor products must provide the following information:

- Proof of an accredited Hemophilia Treatment Center involved in therapy
- Date of last appointment with treatment center
- Contact information for treatment center

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
REQUESTED DRUG :	**DOSAGE:**		
Qualifications for coverage:			
TREATMENT CENTER CONTACT INFORMATION:	DATE OF LAST APPOINTMENT WITH TREATMENT CENTER: _____		
Prescriber Signature:		Date:	

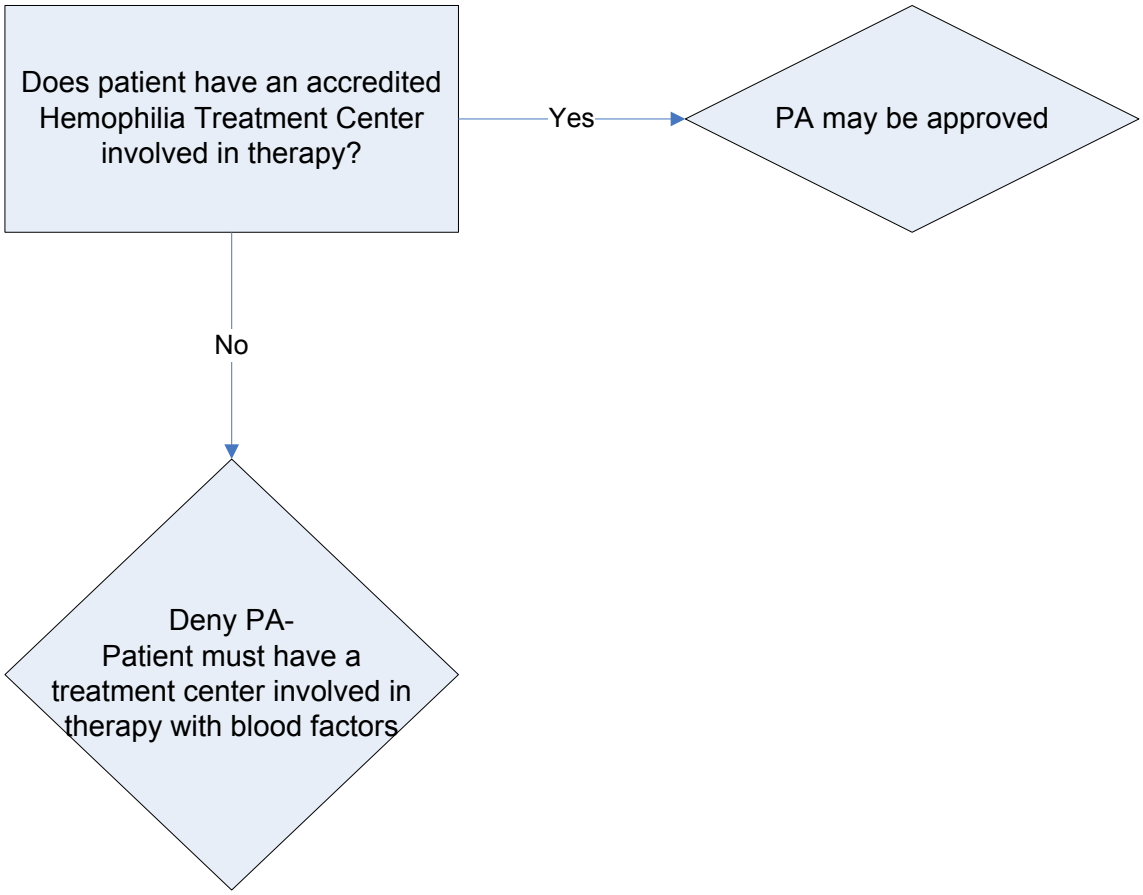
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME			ND MEDICAID PROVIDER NUMBER
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Blood Factor Products Authorization Algorithm



HEALTH INFORMATION DESIGNS

Sancuso Prior Authorization

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

ND Medicaid requires that patients receiving a new prescription for Sancuso must be unable to take oral medications.

Note:

- ***Dolasetron, oral granisetron, and ondansetron do not require PA.***
- ***Patients must be unable to take oral medications or***
- ***Patients must fail therapy on ondansetron or oral granisetron before a PA may be granted.***

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Prescriber Name			
Prescriber Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ **Sancuso**	**Diagnosis for this request:**		
Qualifications for coverage:			
□ FAILED MEDICATION	START DATE: END DATE:	DOSE: FREQUENCY:	
□ PATIENT UNABLE TO TAKE ORAL MEDICATIONS			
Prescriber Signature		Date	

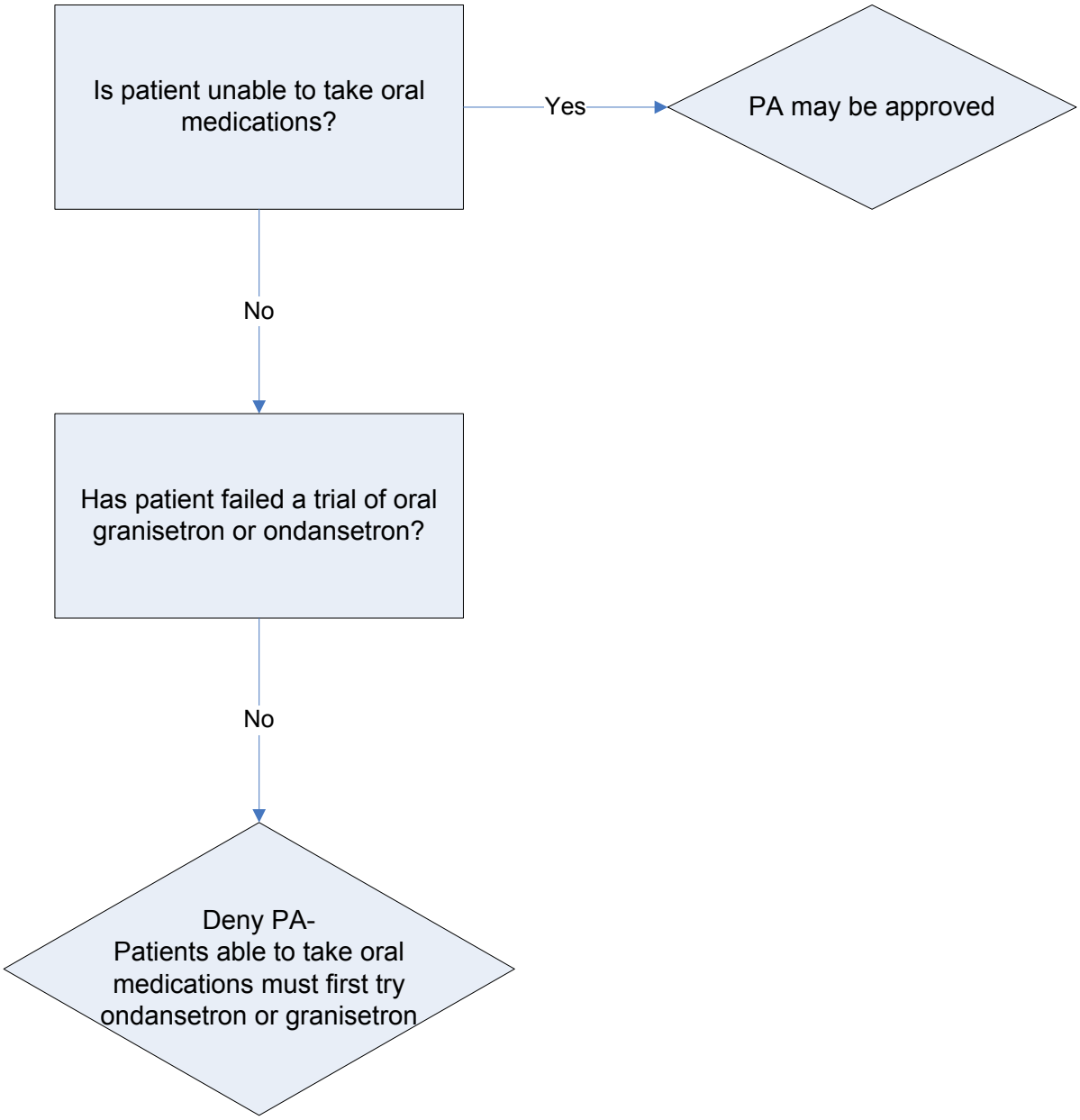
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
PHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Sancuso Authorization Algorithm



HEALTH INFORMATION DESIGNS

Relistor Prior Authorization

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

ND Medicaid requires that patients receiving a new prescription for Relistor must meet the following guidelines:

- Diagnosis of opioid-induced constipation
- Inability to tolerate oral medications *or*
- Failed two oral medications

Note:
***Polyethylene glycol powder is covered without a prior authorization.**

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Prescriber Name			
Prescriber Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ **Relistor**	**Diagnosis for this request:**		
Qualifications for coverage:			
FIRST FAILED MEDICATION	START DATE:	END DATE:	
SECOND FAILED MEDICATION	START DATE:	END DATE:	
□ INABILITY TO TOLERATE ORAL MEDICATIONS			
Prescriber Signature		Date	

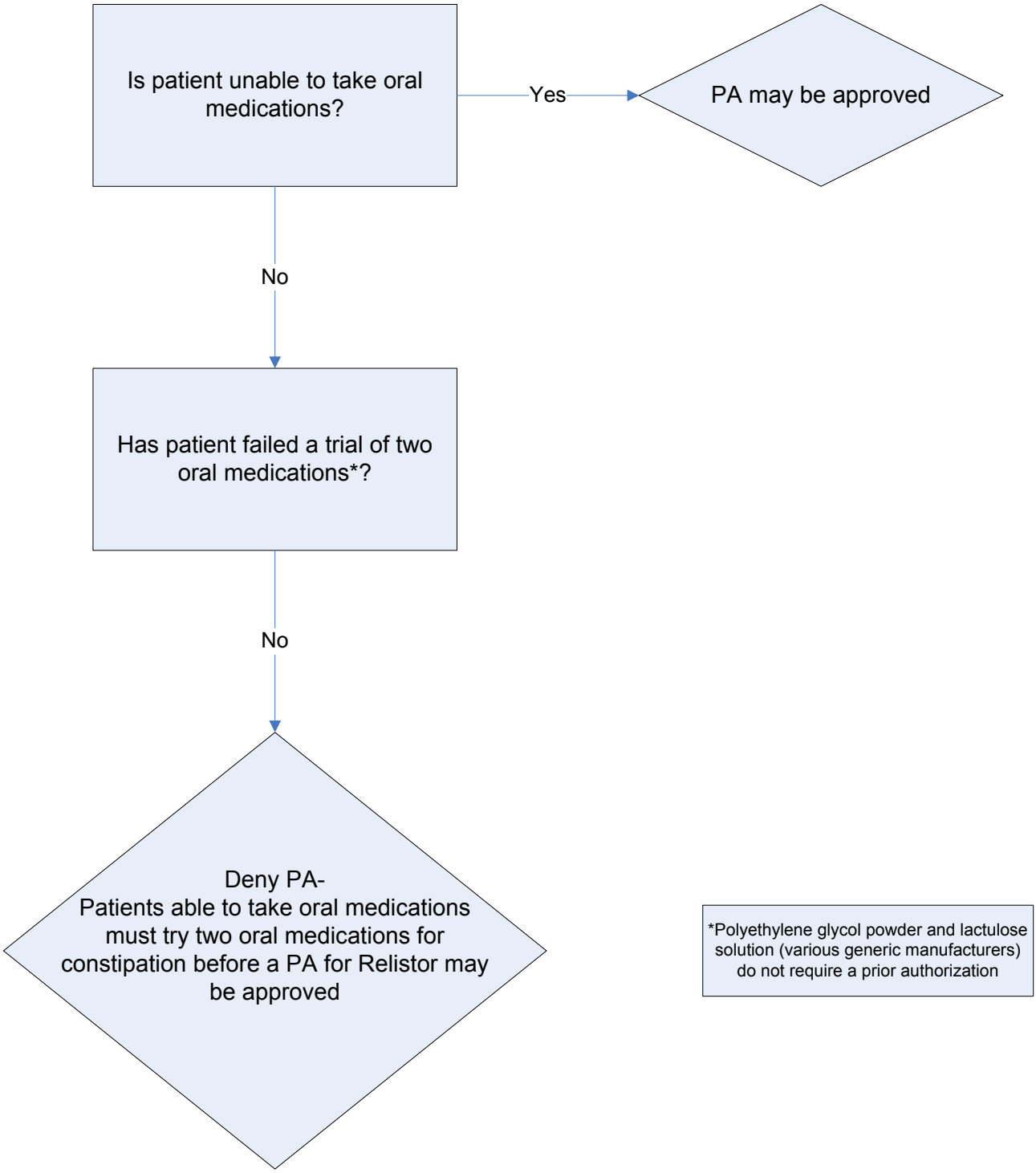
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
PHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Relistor Authorization Algorithm



HEALTH INFORMATION DESIGNS

Prior Authorization Vendor for ND Medicaid

Nuvigil Prior Authorization

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Nuvigil must suffer from excessive sleepiness associated with obstructive sleep apnea/hypopnea syndrome, narcolepsy, or shift work disorder.

- **Provigil is covered without a prior authorization.**

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Prescriber Name			
Prescriber Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ **Nuvigil**	**Diagnosis for this request:**		
Qualifications for coverage:			
□ FAILED MEDICATION	START DATE: END DATE:	DOSE: FREQUENCY:	
□ EXCESSIVE SLEEPINESS ASSOCIATED WITH OBSTRUCTIVE SLEEP APNEA/HYPOPNEA SYNDROME □ NARCOLEPSY □ SHIFT WORK SLEEP DISORDER			
Prescriber Signature		Date	

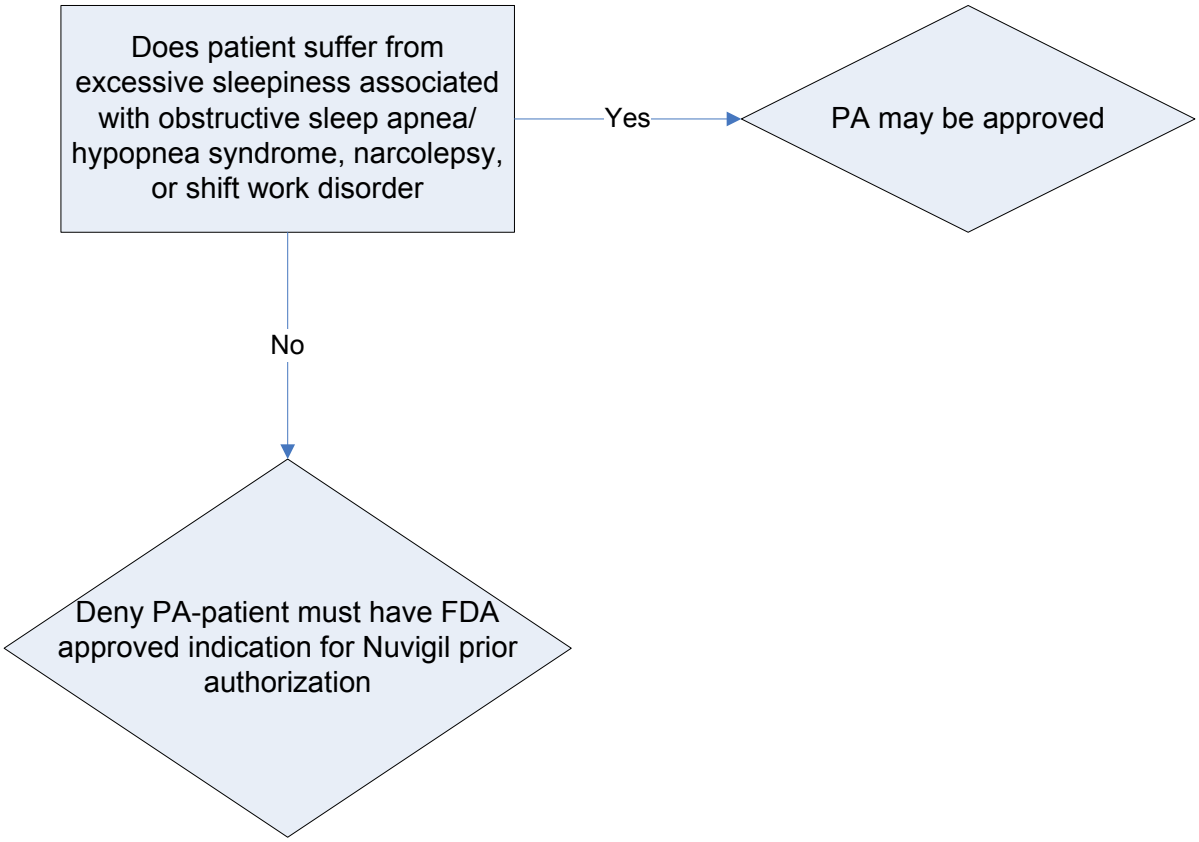
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
PHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Nuvigil Authorization Algorithm



Nucynta Prior Authorization

Prior Authorization Vendor for ND Medicaid

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Nucynta must be unable to tolerate other opioids due to gastrointestinal side effects.

- **Oxycodone IR is covered without a prior authorization.**

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Prescriber Name			
Prescriber Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ **Nucynta**	**Diagnosis for this request:**		
Qualifications for coverage:			
□ FAILED MEDICATION	START DATE: END DATE:	DOSE: FREQUENCY:	
□ UNABLE TO TOLERATE OTHER OPIOIDS DUE TO GASTROINTESTINAL SIDE EFFECTS			
Prescriber Signature		Date	

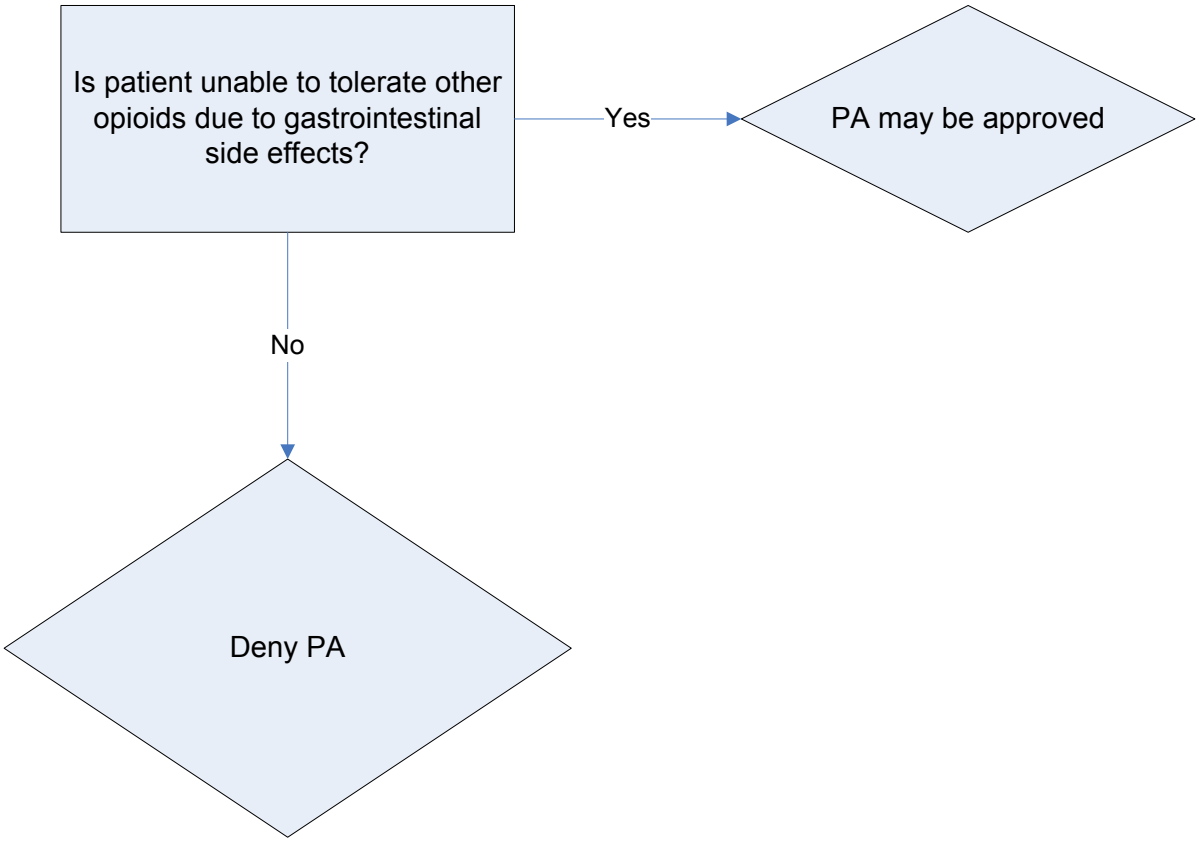
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
PHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Nucynta Authorization Algorithm



SOLODYN PA FORM

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

Note: ND Medicaid will not pay for Solodyn without documented failure of a first line tetracycline agent.

- First line agents include: doxycycline, minocycline, and tetracycline.

Part I: TO BE COMPLETED BY PRESCRIBER

RECIPIENT NAME:	RECIPIENT MEDICAID ID NUMBER:
Recipient Date of birth: / /	
PRESCRIBER NAME:	PRESCRIBER MEDICAID ID NUMBER:
Address:	Phone: ( )
City:	FAX: ( )
State: Zip:	

REQUESTED DRUG: □ **SOLODYN**	**Requested Dosage:** (must be completed)

Qualifications for coverage:

□ Patient has failed a 90 day trial of which first line agent _____

□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*

Prescriber Signature: Date:

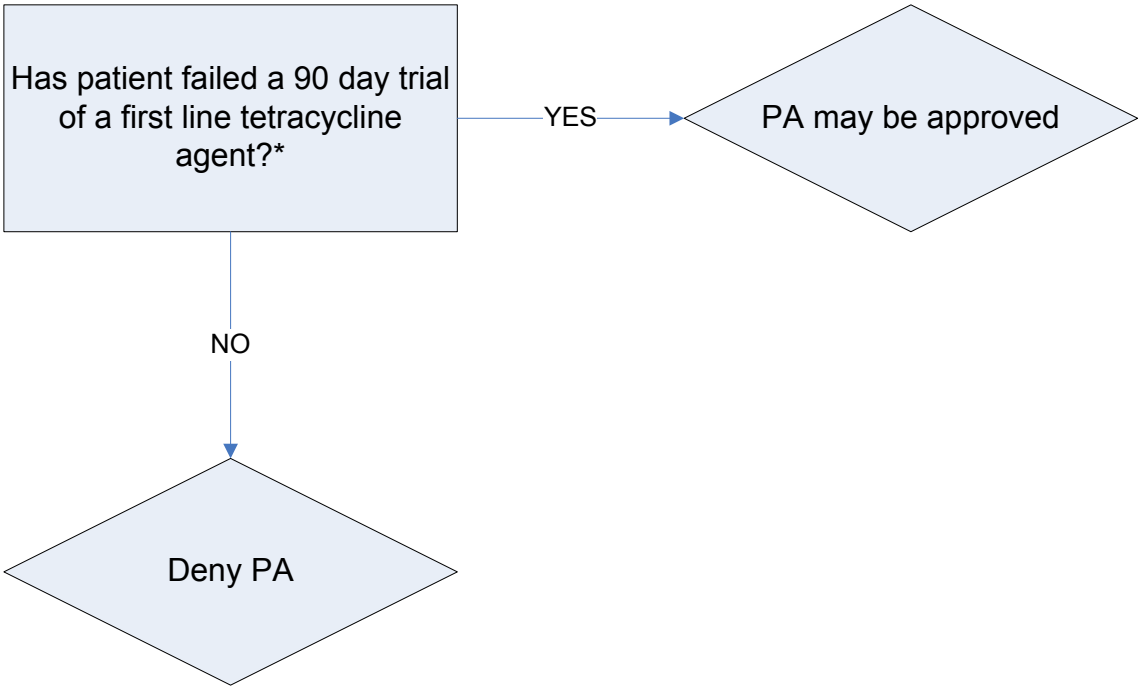
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:	ND MEDICAID PROVIDER NUMBER:
Phone:	FAX:
Drug:	NDC#:

Part III: FOR OFFICIAL USE ONLY

Date: / /	Initials: _____
Approved - Effective dates of PA: From: / /	To: / /
Denied: (Reasons)	

North Dakota Department of Human Service
Solodyn Authorization Algorithm



*First line agents include: doxycycline, minocycline, and tetracycline.

ORACEA PA FORM

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

Prior Authorization Vendor for ND Medicaid

Note: ND Medicaid will not pay for Oracea without documented failure of a first line tetracycline agent.

- First line agents include: doxycycline, minocycline, and tetracycline.

Part I: TO BE COMPLETED BY PRESCRIBER

RECIPIENT NAME:	RECIPIENT MEDICAID ID NUMBER:
Recipient Date of birth: / /	
PRESCRIBER NAME:	PRESCRIBER MEDICAID ID NUMBER:
Address:	Phone: ( )
City:	FAX: ( )
State: Zip:	

REQUESTED DRUG: □ **ORACEA**	**Requested Dosage:** (must be completed)

Qualifications for coverage:

□ Patient has failed a 90 day trial of which first line agent _____

□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*

Prescriber Signature: Date:

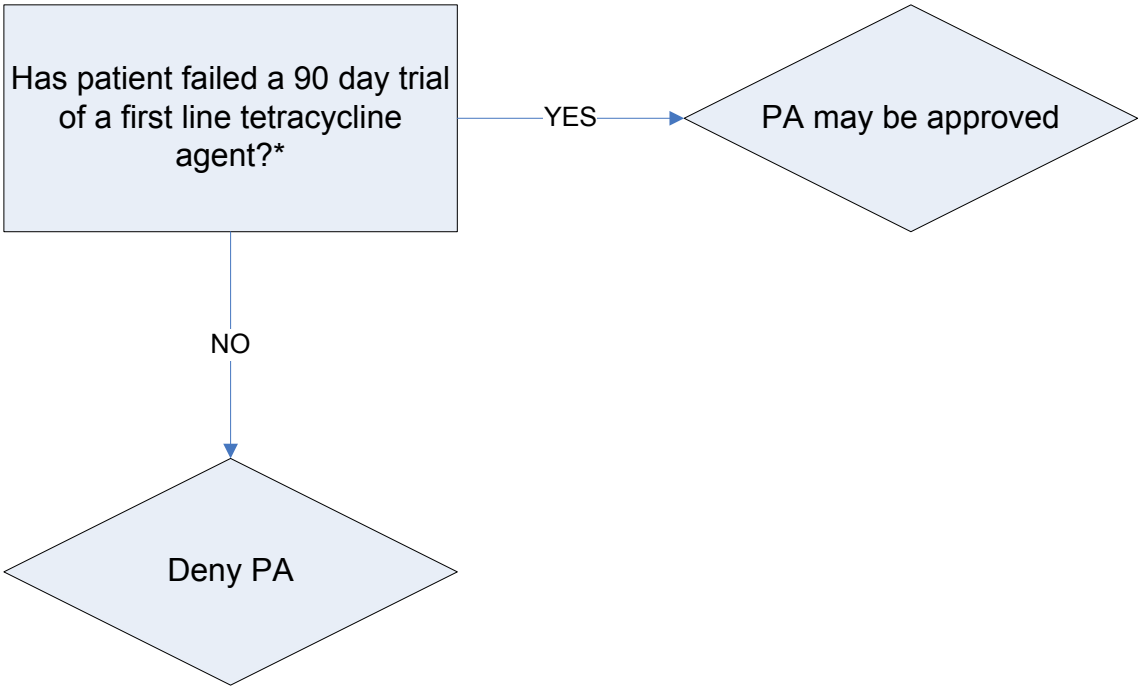
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:	ND MEDICAID PROVIDER NUMBER:
Phone:	FAX:
Drug:	NDC#:

Part III: FOR OFFICIAL USE ONLY

Date: / /	Initials: _____
Approved - Effective dates of PA: From: / /	To: / /
Denied: (Reasons)	

North Dakota Department of Human Service
Oracea Authorization Algorithm



*First line agents include: doxycycline, minocycline, and tetracycline.

HEALTH INFORMATION DESIGNS

Prior Authorization Vendor for ND Medicaid

OXYCODONE CR
PA FORM

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

***Note: The PA may be approved if all of the following criteria are met.**

- **Patient has a chronic pain indication (includes cancer).**
- **Patient has taken an immediate release narcotic for the past 90 days or is switching from another sustained release opioid analgesic.**

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name		Recipient Date of Birth	Recipient Medicaid ID Number	
Prescriber Name				
Prescriber Medicaid Provider Number		Telephone Number	Fax Number	
Address		City	State	Zip Code
Requested Drug: □ OXYCODONE CR	**DOSAGE:**	**Diagnosis for this request:**		
QUALIFICATIONS FOR COVERAGE: □ CHRONIC MALIGNANT PAIN INDICATION □ CHRONIC NON-MALIGNANT PAIN INDICATION		**LIST IMMEDIATE RELEASE MEDICATION TAKEN:**		
LIST OTHER SUSTAINED RELEASE OPIOID ANALGESIC PATIENT IS SWITCHING FROM:				
□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*				
Prescriber Signature			Date	

Part II: TO BE COMPLETED BY PHARMACY

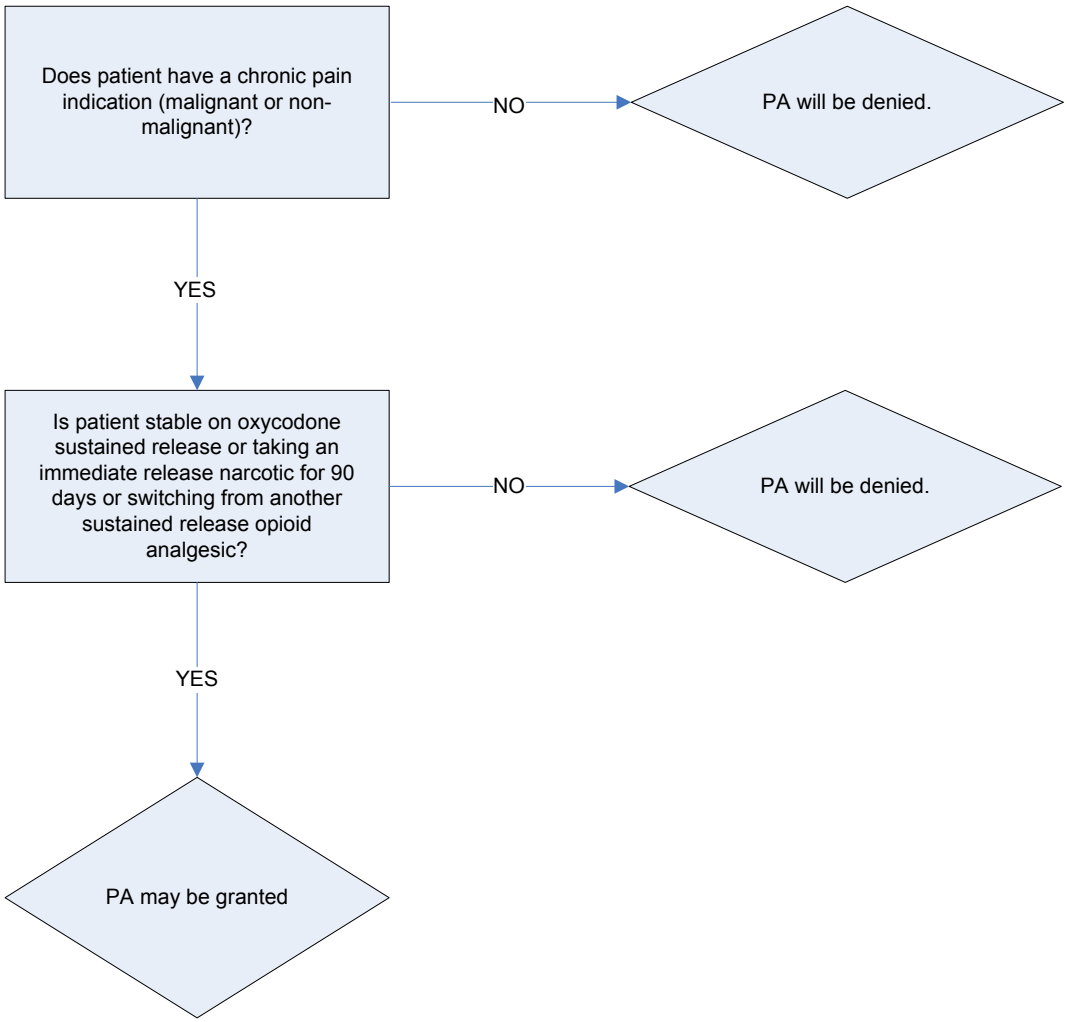
PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services

Oxycodone CR Prior Authorization Criteria Algorithm



Short-Acting HFA Beta$_2$ Agonist PA FORM

Prior Authorization Vendor for ND Medicaid

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for ProAir HFA, Ventolin HFA, or Xopenex HFA must use Proventil HFA as first line therapy.

***Note: Proventil HFA does not require a prior authorization.**

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Prescriber Name			
Prescriber Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ XOPENEX HFA □ VENTOLIN HFA □ PROAIR HFA	**Diagnosis for this request:**		

Qualifications for coverage:				
□ Failed Proventil HFA therapy	Start Date	End Date	Dose	Frequency
□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*				
Prescriber Signature			Date	

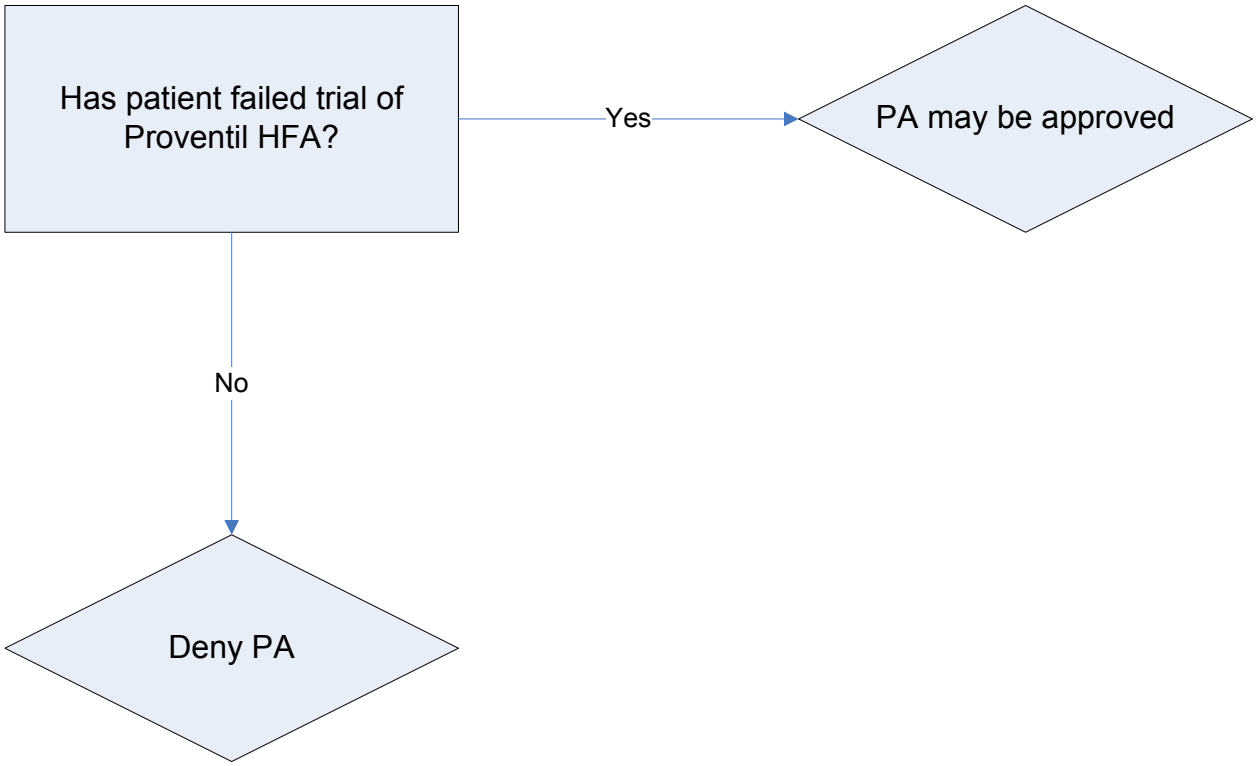
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services Short-Acting Beta$_2$ Agonist Authorization Algorithm



NORTH DAKOTA MEDICAID
Percentage Market Share Within Sub-Classes
Short-Acting Beta-2 HFA Agonists

	FEB 04	SEP 07	JUN 09
All Short-Acting Beta-2 HFA Agonists(No Subclass)			
PROAIR HFA	0.00	4.63	0.15
PROVENTIL HFA	87.50	86.57	97.70
VENTOLIN HFA	12.50	0.00	0.15
XOPENEX HFA	0.00	8.80	1.99

Vusion PA FORM

Prior Authorization Vendor for ND Medicaid

Fax Completed Form to:
866-254-0761
For questions regarding this Prior authorization, call
866-773-0695

ND Medicaid requires that patients receiving a new prescription for Vusion must try other topical antifungal products as first line therapy.

***Note: Nystatin and clotrimazole do not require a prior authorization.**

Part I: TO BE COMPLETED BY PRESCRIBER

Recipient Name	Recipient Date of Birth	Recipient Medicaid ID Number	
Physician Name			
Physician Medicaid Provider Number	Telephone Number	Fax Number	
Address	City	State	Zip Code
Requested Drug and Dosage: □ VUSION	**Diagnosis for this request:**		

Qualifications for coverage:

□ Failed antifungal therapy Name of medication failed: _____	Start Date	End Date	Dose	Frequency

□ *I confirm that I have considered a generic or other alternative and that the requested drug is expected to result in the successful medical management of the recipient.*

Prescriber Signature	Date

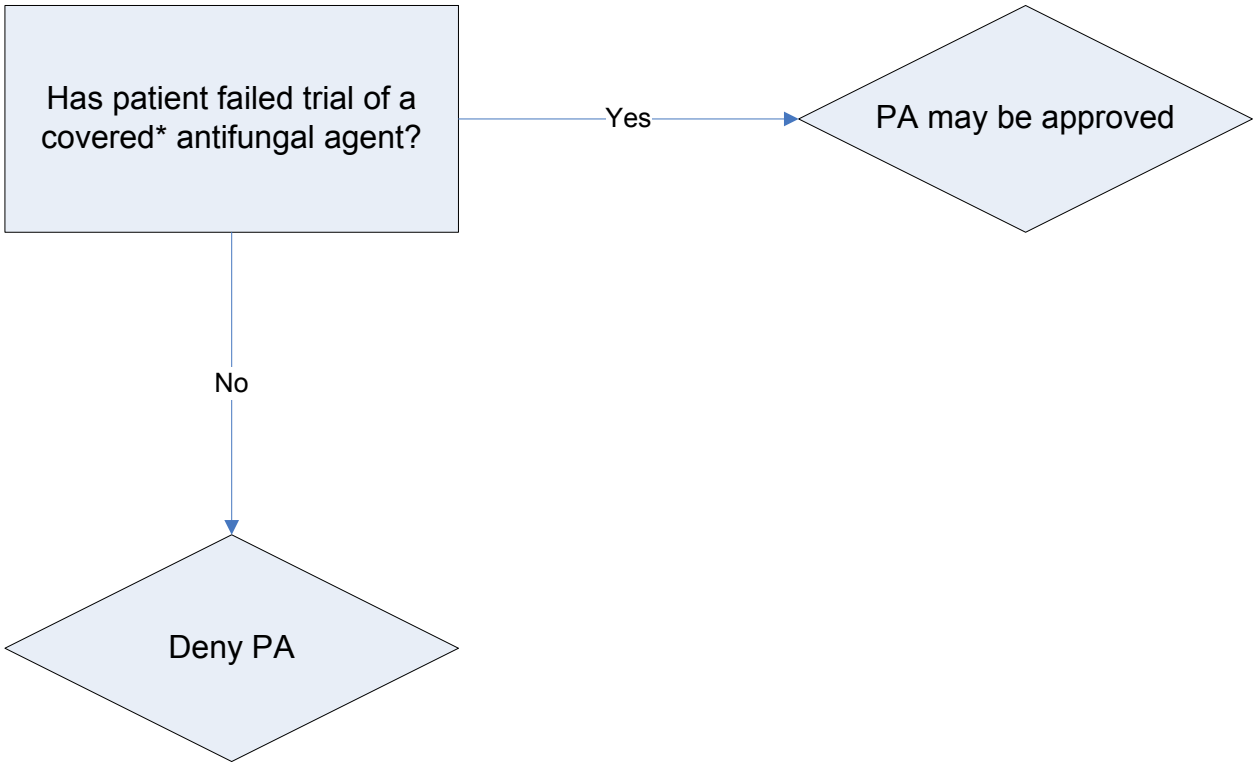
Part II: TO BE COMPLETED BY PHARMACY

PHARMACY NAME:			ND MEDICAID PROVIDER NUMBER:
TELEPHONE NUMBER	FAX NUMBER	DRUG	NDC #

Part III: FOR OFFICIAL USE ONLY

Date Received	Initials:
Approved - Effective dates of PA: From: / / To: / /	Approved by:
Denied: (Reasons)	

North Dakota Department of Human Services
Vusion Authorization Algorithm



*Nystatin and clotrimazole do not require a PA

Top 250 Drugs by Total Claims				
10/06/08-10/05/09				
Drug Name	Total Claims	Total Claims Cost	Total Patients	Cost Per Claim
HYDROCODONE-ACETAMINOPHEN	14,285	163,712.00	4,733	11.46
AMOXICILLIN	12,190	131,314.23	9,071	10.77
AZITHROMYCIN	11,980	243,220.14	8,705	20.3
LORAZEPAM	11,451	94,557.93	2,414	8.26
CLONAZEPAM	7,927	66,625.05	1,246	8.4
OMEPRAZOLE	7,248	158,942.02	1,992	21.93
PROVENTIL HFA	7,237	324,162.53	3,135	44.79
CONCERTA	6,646	813,951.77	1,114	122.47
SINGULAIR	6,098	629,737.21	1,538	103.27
FLUOXETINE HCL	5,872	65,359.16	1,319	11.13
LEVOTHYROXINE SODIUM	5,740	64,698.18	868	11.27
SERTRALINE HCL	5,550	53,217.97	1,299	9.59
TRAMADOL HCL	5,305	50,927.80	1,845	9.6
IBUPROFEN	5,264	38,837.98	3,244	7.38
ALPRAZOLAM	5,154	41,837.87	1,045	8.12
LISINOPRIL	4,973	45,543.80	883	9.16
TRAZODONE HCL	4,775	37,400.99	1,178	7.83
SEROQUEL	4,709	1,143,239.72	707	242.78
AMOX TR-POTASSIUM CLAVULANATE	4,628	141,521.13	3,673	30.58
CLONIDINE HCL	4,470	41,252.48	767	9.23
ZOLPIDEM TARTRATE	4,443	36,596.41	1,079	8.24
RISPERIDONE	4,296	319,361.35	579	74.34
ALBUTEROL SULFATE	4,139	76,423.76	2,330	18.46
CEPHALEXIN	4,046	58,969.89	3,375	14.57
ACETAMINOPHEN-CODEINE	4,018	34,638.27	2,863	8.62
CYCLOBENZAPRINE HCL	3,979	33,491.51	1,880	8.42
METFORMIN HCL	3,908	43,741.22	771	11.19
SULFAMETHOXAZOLE-TRIMETHOPRIM	3,834	43,920.10	2,800	11.46
ADDERALL XR	3,698	618,163.73	751	167.16
LEXAPRO	3,652	320,227.47	872	87.69
OXYCODONE-ACETAMINOPHEN	3,492	33,926.86	1,791	9.72
ASPIRIN EC	3,158	7,536.10	581	2.39
PREDNISONE	2,963	22,324.45	1,676	7.53
FUROSEMIDE	2,949	20,702.31	586	7.02
LAMOTRIGINE	2,933	307,510.89	459	104.85
CYMBALTA	2,912	386,785.53	531	132.82
CEFDINIR	2,779	113,094.89	2,068	40.7
EFFEXOR XR	2,778	347,967.99	465	125.26
ABILIFY	2,770	1,031,667.82	515	372.44
HYDROCHLOROTHIAZIDE	2,736	18,065.62	513	6.6
METHYLIN	2,728	67,215.66	669	24.64
PROMETHAZINE-CODEINE	2,698	26,945.37	1,942	9.99
VYVANSE	2,663	271,385.29	494	101.91

Top 250 Drugs by Total Claims				
10/06/08-10/05/09				
Drug Name	Total Claims	Total Claims Cost	Total Patients	Cost Per Claim
CITALOPRAM HBR	2,631	29,970.01	666	11.39
FOLIC ACID	2,590	16,202.46	439	6.26
GABAPENTIN	2,562	62,202.04	562	24.28
ADVAIR DISKUS	2,559	509,336.76	748	199.04
LIPITOR	2,512	249,006.64	377	99.13
LORATADINE	2,509	19,585.64	914	7.81
LYRICA	2,422	323,926.12	487	133.74
SIMVASTATIN	2,418	26,964.46	470	11.15
PROPOXYPHENE NAPSYLATE-APAP	2,392	25,372.05	1,112	10.61
STRATTERA	2,271	305,970.55	432	134.73
DIAZEPAM	2,230	16,787.98	677	7.53
PROMETHAZINE HCL	2,215	29,556.44	1,356	13.34
BUPROPION XL	2,149	116,282.48	504	54.11
TRIAMCINOLONE ACETONIDE	2,107	20,358.52	1,433	9.66
FLUCONAZOLE	2,094	18,751.31	1,357	8.95
FREESTYLE LITE STRIPS	2,066	224,531.19	629	108.68
PRENATAL PLUS	2,052	17,571.06	893	8.56
AMITRIPTYLINE HCL	2,032	14,304.70	498	7.04
CYANOCOBALAMIN	2,021	11,392.95	327	5.64
METADATE CD	2,019	235,742.53	347	116.76
PAROXETINE HCL	1,954	54,689.88	415	27.99
AMPHETAMINE SALT COMBO	1,890	42,884.69	413	22.69
CIPROFLOXACIN HCL	1,862	18,120.78	1,497	9.73
DIVALPROEX SODIUM	1,831	55,483.98	266	30.3
ATENOLOL	1,819	12,498.07	294	6.87
PROPRANOLOL HCL	1,802	33,708.98	404	18.71
NAPROXEN	1,771	16,487.71	1,118	9.31
MIRTAZAPINE	1,769	25,114.00	427	14.2
PHENOBARBITAL	1,737	12,664.19	203	7.29
YAZ	1,704	98,629.27	412	57.88
METOPROLOL TARTRATE	1,683	12,729.98	342	7.56
CETIRIZINE HCL	1,625	20,079.86	634	12.36
OXCARBAZEPINE	1,586	82,449.07	230	51.99
ZYPREXA	1,582	813,463.60	204	514.2
AMLODIPINE BESYLATE	1,580	15,125.23	301	9.57
OXYCODONE HCL	1,579	97,319.94	433	61.63
POLYETHYLENE GLYCOL	1,572	35,760.07	610	22.75
FOCALIN XR	1,548	172,139.36	284	111.2
RANITIDINE HCL	1,546	25,269.11	586	16.34
NYSTATIN	1,544	19,849.63	1,144	12.86
FLUTICASONE PROPIONATE	1,494	31,174.88	792	20.87
PENICILLIN V POTASSIUM	1,488	16,775.61	1,206	11.27
PULMICORT	1,486	341,912.43	644	230.09

Top 250 Drugs by Total Claims				
10/06/08-10/05/09				
Drug Name	Total Claims	Total Claims Cost	Total Patients	Cost Per Claim
ACETAMINOPHEN	1,471	6,591.46	717	4.48
DOXYCYCLINE HYCLATE	1,447	10,890.84	986	7.53
AMOXIL	1,441	12,247.91	1,231	8.5
BUDEPRION XL	1,428	105,908.56	389	74.17
PREVACID	1,419	211,148.65	352	148.8
METRONIDAZOLE	1,386	19,543.34	1,120	14.1
LANTUS	1,369	198,509.10	266	145
TOPAMAX	1,361	360,942.59	306	265.2
CEFPROZIL	1,335	45,162.70	1,080	33.83
METOCLOPRAMIDE HCL	1,328	10,745.19	672	8.09
GEODON	1,313	405,326.05	156	308.7
POTASSIUM CHLORIDE	1,306	23,332.79	313	17.87
MUPIROCIN	1,277	21,613.03	1,070	16.92
TRI-SPRINTEC	1,233	32,428.31	311	26.3
WARFARIN SODIUM	1,231	14,068.48	201	11.43
BACLOFEN	1,210	15,709.01	210	12.98
NOVOLOG	1,204	211,007.57	294	175.26
DEXTROAMPHETAMINE-AMPHETAMINE	1,194	189,347.62	476	158.58
MAPAP	1,185	3,677.35	780	3.1
PREDNISOLONE SODIUM PHOSPHATE	1,179	14,440.18	930	12.25
CLOZAPINE	1,155	101,262.11	66	87.67
CLINDAMYCIN HCL	1,145	21,132.38	913	18.46
METOPROLOL SUCCINATE	1,135	33,455.20	238	29.48
FERROUS SULFATE	1,109	3,935.08	506	3.55
BENZTROPINE MESYLATE	1,100	10,900.55	158	9.91
HYDROXYZINE HCL	1,064	24,750.47	501	23.26
CHERATUSSIN AC	1,060	7,631.57	860	7.2
FREESTYLE LANCETS	1,052	13,284.35	500	12.63
PREDNISOLONE	1,049	8,550.75	860	8.15
LEVAQUIN	1,029	119,976.66	772	116.6
XOPENEX	1,015	128,481.04	499	126.58
GENTAMICIN SULFATE	1,004	7,882.03	923	7.85
FREESTYLE TEST STRIPS	995	105,016.58	288	105.54
DEXTROAMPHETAMINE SULFATE	986	71,149.87	186	72.16
LEVETIRACETAM	961	90,019.24	187	93.67
GUANFACINE HCL	955	12,869.81	184	13.48
PLAVIX	953	138,165.85	154	144.98
CARBAMAZEPINE	941	19,223.50	129	20.43
NITROFURANTOIN MONO-MACRO	933	15,441.50	722	16.55
MORPHINE SULFATE	925	27,550.14	185	29.78
FENTANYL	918	136,972.22	156	149.21
RITALIN LA	910	89,969.38	174	98.87
TOPIRAMATE	907	31,672.03	280	34.92

Top 250 Drugs by Total Claims				
10/06/08-10/05/09				
Drug Name	Total Claims	Total Claims Cost	Total Patients	Cost Per Claim
HUMALOG	899	169,456.41	182	188.49
LITHIUM CARBONATE	895	20,803.90	144	23.24
CIPRODEX	874	82,419.21	724	94.3
PRILOSEC OTC	870	18,769.14	229	21.57
ACTOS	864	162,332.12	153	187.88
BENZONATATE	863	12,953.23	598	15.01
HYDROCORTISONE	853	11,904.98	579	13.96
MINOCYCLINE HCL	844	24,415.54	244	28.93
TRICOR	833	80,353.64	130	96.46
HYDROMORPHONE HCL	827	8,994.37	254	10.88
BUPROPION HCL SR	814	39,848.31	250	48.95
METHYLPHENIDATE HCL	809	13,853.72	320	17.12
ONDANSETRON HCL	793	19,789.66	401	24.96
SPIRONOLACTONE	791	16,515.68	180	20.88
OXYCONTIN	782	222,595.96	137	284.65
NUVARING	773	45,848.77	223	59.31
ORTHO TRI-CYCLEN LO	769	40,308.04	198	52.42
KEPPRA	766	190,427.27	185	248.6
DEPAKOTE ER	764	125,653.12	154	164.47
VITAMIN D	755	7,957.78	183	10.54
CRESTOR	751	76,080.43	107	101.31
MEDROXYPROGESTERONE ACETATE	750	28,043.14	408	37.39
TEMAZEPAM	747	6,135.78	152	8.21
AVIANE	736	18,251.85	192	24.8
ENALAPRIL MALEATE	732	5,500.62	129	7.51
FAMOTIDINE	720	7,011.31	214	9.74
VALTREX	710	107,945.45	299	152.04
LISINOPRIL-HCTZ	705	8,081.59	147	11.46
LANTUS SOLOSTAR	701	125,038.99	150	178.37
MELOXICAM	696	7,036.87	289	10.11
CARISOPRODOL	688	8,616.23	187	12.52
PANTOPRAZOLE SODIUM	683	77,476.14	161	113.44
FLOVENT HFA	679	77,482.24	312	114.11
BUSPIRONE HCL	677	12,246.29	189	18.09
METHADONE HCL	677	12,159.95	93	17.96
TRIAMTERENE-HCTZ	674	6,614.14	123	9.81
VALPROIC ACID	657	15,910.07	79	24.22
TIZANIDINE HCL	657	13,418.51	176	20.42
SPIRIVA	654	103,814.43	136	158.74
METHYLPREDNISOLONE	645	6,383.67	562	9.9
GLYBURIDE	640	9,844.58	120	15.38
PHENYTOIN SODIUM EXTENDED	638	19,102.31	107	29.94
CLINDAMYCIN PHOSPHATE	619	14,021.72	347	22.65

Top 250 Drugs by Total Claims				
10/06/08-10/05/09				
Drug Name	Total Claims	Total Claims Cost	Total Patients	Cost Per Claim
APRI	613	12,979.52	167	21.17
GEMFIBROZIL	613	12,383.49	105	20.2
LEVEMIR	601	129,984.10	152	216.28
DIVALPROEX SODIUM ER	601	80,876.26	156	134.57
TEGRETOL XR	590	46,681.71	65	79.12
PREMARIN	587	32,107.16	160	54.7
SUMATRIPTAN SUCCINATE	586	111,678.63	289	190.58
DETROL LA	586	68,583.77	117	117.04
NEOMYCIN-POLYMYXIN-HC	580	11,725.95	509	20.22
BENZACLIN	575	61,036.53	250	106.15
DESMOPRESSIN ACETATE	572	51,345.59	126	89.77
CLOTRIMAZOLE-BETAMETHASONE	562	14,386.27	414	25.6
ALBUTEROL	547	10,850.50	427	19.84
ORTHO EVRA	546	30,868.90	157	56.54
NASONEX	541	41,912.52	270	77.47
PERMETHRIN	533	10,971.45	447	20.58
VIGAMOX	531	31,883.91	488	60.05
ASPIR-LOW	528	998.12	96	1.89
OCELLA	525	25,249.16	141	48.09
NORTREL	525	12,430.90	132	23.68
HYDROCODONE BIT-IBUPROFEN	524	13,663.36	306	26.08
KETOROLAC TROMETHAMINE	524	5,017.50	375	9.58
LACTULOSE	515	9,781.98	161	18.99
ERYTHROMYCIN	515	4,628.24	407	8.99
COMBIVENT	507	56,509.43	139	111.46
ALENDRONATE SODIUM	507	8,060.27	84	15.9
IMIPRAMINE HCL	503	9,937.27	109	19.76
CARVEDILOL	496	5,497.21	85	11.08
INVEGA	487	209,413.18	82	430.01
CRYSELLE	487	11,813.51	142	24.26
HYDROXYZINE PAMOATE	487	5,090.55	239	10.45
INSULIN SYRINGE ULTRA-FINE II	485	12,580.78	131	25.94
DIGOXIN	479	5,603.03	72	11.7
IPRATROPIUM-ALBUTEROL	473	22,143.10	189	46.81
POLYMYXIN B SUL-TRIMETHOPRIM	469	5,474.50	452	11.67
TRILEPTAL	467	77,820.90	69	166.64
PHENAZOPYRIDINE HCL	466	2,909.29	401	6.24
NYSTATIN-TRIAMCINOLONE	463	3,508.07	379	7.58
DAYTRANA	459	59,118.31	110	128.8
METFORMIN HCL ER	456	5,760.46	87	12.63
ISOSORBIDE MONONITRATE	446	6,237.87	78	13.99
OXYBUTYNIN CHLORIDE	446	5,934.23	95	13.31
AMOCLAN	445	9,212.27	360	20.7

Top 250 Drugs by Total Claims				
10/06/08-10/05/09				
Drug Name	Total Claims	Total Claims Cost	Total Patients	Cost Per Claim
DIFFERIN	440	61,005.47	225	138.65
ACYCLOVIR	439	5,843.63	253	13.31
TETRACYCLINE HCL	439	3,834.16	151	8.73
SODIUM CHLORIDE	438	6,698.51	237	15.29
ZETIA	437	44,862.46	59	102.66
SEROQUEL XR	435	124,985.49	119	287.32
CELEBREX	435	52,715.16	136	121.18
FOCALIN	433	27,254.72	111	62.94
ULTRA-FINE SHORT PEN NEEDLE	433	14,709.20	151	33.97
METHOTREXATE	427	8,659.70	96	20.28
AMBIEN CR	423	60,169.09	84	142.24
DILANTIN	423	12,536.68	61	29.64
BUDESONIDE	422	85,824.33	263	203.38
DICLOFENAC POTASSIUM	417	9,718.41	321	23.31
ONDANSETRON ODT	415	7,267.36	280	17.51
LEVOCARNITINE	414	25,311.05	59	61.14
DEPAKOTE SPRINKLE	412	61,378.27	79	148.98
ROPINIROLE HCL	412	9,969.66	67	24.2
IPRATROPIUM BROMIDE	408	7,269.87	123	17.82
KETOCONAZOLE	407	9,762.92	251	23.99
NASACORT AQ	406	35,727.33	180	88
ALLOPURINOL	404	3,290.82	67	8.15
BACTROBAN	403	23,820.08	329	59.11
VERAPAMIL HCL	403	7,405.62	109	18.38
METHYLIN ER	397	10,609.39	105	26.72
DICLOFENAC SODIUM	397	9,167.72	233	23.09
SKELAXIN	395	67,962.58	181	172.06
AURODEX EAR DROPS	383	2,527.04	354	6.6
OXYBUTYNIN CHLORIDE ER	380	34,028.51	65	89.55
QUINAPRIL HCL	379	4,345.63	62	11.47
SULFATRIM	373	5,292.62	313	14.19
FEXOFENADINE HCL	371	15,175.79	84	40.91
LAMICTAL	366	108,350.92	73	296.04
TRAMADOL HCL-ACETAMINOPHEN	366	12,453.49	195	34.03
SUBOXONE	363	99,186.75	59	273.24

Top 250 Drugs by Total Claims Cost				
10/06/08-10/05/09				
Drug Name	Total Claims	Total Claims Cost	Total Patients	Cost Per Patient
SEROQUEL	4,709	1,143,239.72	707	1,617.03
ABILIFY	2,770	1,031,667.82	515	2,003.24
CONCERTA	6,646	813,951.77	1,114	730.66
ZYPREXA	1,582	813,463.60	204	3,987.57
SINGULAIR	6,098	629,737.21	1,538	409.45
ADDERALL XR	3,698	618,163.73	751	823.12
ADVAIR DISKUS	2,559	509,336.76	748	680.93
SYNAGIS	337	473,893.61	72	6,581.86
GEODON	1,313	405,326.05	156	2,598.24
CYMBALTA	2,912	386,785.53	531	728.41
TOPAMAX	1,361	360,942.59	306	1,179.55
EFFEXOR XR	2,778	347,967.99	465	748.32
PULMICORT	1,486	341,912.43	644	530.92
HELIXATE FS	38	335,870.46	2	167,935.23
PROVENTIL HFA	7,237	324,162.53	3,135	103.4
LYRICA	2,422	323,926.12	487	665.15
LEXAPRO	3,652	320,227.47	872	367.23
RISPERIDONE	4,296	319,361.35	579	551.57
LAMOTRIGINE	2,933	307,510.89	459	669.96
STRATTERA	2,271	305,970.55	432	708.27
VYVANSE	2,663	271,385.29	494	549.36
ADVATE UH	22	267,391.75	1	267,391.75
LIPITOR	2,512	249,006.64	377	660.5
AZITHROMYCIN	11,980	243,220.14	8,705	27.94
METADATE CD	2,019	235,742.53	347	679.37
FREESTYLE LITE STRIPS	2,066	224,531.19	629	356.97
COPAXONE	96	223,373.13	15	14,891.54
OXYCONTIN	782	222,595.96	137	1,624.79
PREVACID	1,419	211,148.65	352	599.85
NOVOLOG	1,204	211,007.57	294	717.71
INVEGA	487	209,413.18	82	2,553.82
LANTUS	1,369	198,509.10	266	746.27
ENBREL	138	198,286.48	29	6,837.46
KEPPRA	766	190,427.27	185	1,029.34
DEXTROAMPHETAMINE-AMPHETAMINE	1,194	189,347.62	476	397.79
LOVENOX	230	182,807.73	91	2,008.88
HUMIRA	96	175,249.84	19	9,223.68
FOCALIN XR	1,548	172,139.36	284	606.12
HUMALOG	899	169,456.41	182	931.08
RISPERDAL CONSTA	309	168,945.80	29	5,825.72
HYDROCODONE-ACETAMINOPHEN	14,285	163,712.00	4,733	34.59
ACTOS	864	162,332.12	153	1,060.99
OMEPRAZOLE	7,248	158,942.02	1,992	79.79

Top 250 Drugs by Total Claims Cost				
10/06/08-10/05/09				
Drug Name	Total Claims	Total Claims Cost	Total Patients	Cost Per Patient
AMOX TR-POTASSIUM CLAVULANATE	4,628	141,521.13	3,673	38.53
PLAVIX	953	138,165.85	154	897.18
FENTANYL	918	136,972.22	156	878.03
AMOXICILLIN	12,190	131,314.23	9,071	14.48
LEVEMIR	601	129,984.10	152	855.16
XOPENEX	1,015	128,481.04	499	257.48
DEPAKOTE ER	764	125,653.12	154	815.93
LANTUS SOLOSTAR	701	125,038.99	150	833.59
SEROQUEL XR	435	124,985.49	119	1,050.30
PULMOZYME	79	119,989.55	16	7,499.35
LEVAQUIN	1,029	119,976.66	772	155.41
BUPROPION XL	2,149	116,282.48	504	230.72
ZYPREXA ZYDIS	210	115,992.25	33	3,514.92
CEFDINIR	2,779	113,094.89	2,068	54.69
SUMATRIPTAN SUCCINATE	586	111,678.63	289	386.43
PROVIGIL	359	110,007.71	70	1,571.54
XELODA	66	108,535.99	14	7,752.57
LAMICTAL	366	108,350.92	73	1,484.26
VALTREX	710	107,945.45	299	361.02
BUDEPRION XL	1,428	105,908.56	389	272.26
FREESTYLE TEST STRIPS	995	105,016.58	288	364.64
SPIRIVA	654	103,814.43	136	763.34
CLOZAPINE	1,155	101,262.11	66	1,534.27
SUBOXONE	363	99,186.75	59	1,681.13
YAZ	1,704	98,629.27	412	239.39
OXYCODONE HCL	1,579	97,319.94	433	224.76
LORAZEPAM	11,451	94,557.93	2,414	39.17
LEVETIRACETAM	961	90,019.24	187	481.39
RITALIN LA	910	89,969.38	174	517.07
PEGASYS	42	88,049.47	12	7,337.46
BUDESONIDE	422	85,824.33	263	326.33
PRIVIGEN	12	83,042.67	1	83,042.67
OXCARBAZEPINE	1,586	82,449.07	230	358.47
CIPRODEX	874	82,419.21	724	113.84
AVONEX	33	81,980.55	7	11,711.51
DIVALPROEX SODIUM ER	601	80,876.26	156	518.44
TRICOR	833	80,353.64	130	618.1
TOBI	40	80,295.76	19	4,226.09
PROGRAF	170	80,000.97	20	4,000.05
TRILEPTAL	467	77,820.90	69	1,127.84
FLOVENT HFA	679	77,482.24	312	248.34
PANTOPRAZOLE SODIUM	683	77,476.14	161	481.22
ALBUTEROL SULFATE	4,139	76,423.76	2,330	32.8

Top 250 Drugs by Total Claims Cost				
10/06/08-10/05/09				
Drug Name	Total Claims	Total Claims Cost	Total Patients	Cost Per Patient
CRESTOR	751	76,080.43	107	711.03
TRACLEER	16	74,656.07	4	18,664.02
DEXTROAMPHETAMINE SULFATE	986	71,149.87	186	382.53
IMITREX	302	70,908.72	176	402.89
DETROL LA	586	68,583.77	117	586.19
SKELAXIN	395	67,962.58	181	375.48
GLEEVEC	12	67,609.60	4	16,902.40
ZYVOX	54	67,304.92	33	2,039.54
METHYLIN	2,728	67,215.66	669	100.47
CLONAZEPAM	7,927	66,625.05	1,246	53.47
FLUOXETINE HCL	5,872	65,359.16	1,319	49.55
LEVOTHYROXINE SODIUM	5,740	64,698.18	868	74.54
PEGINTRON REDIPEN	30	63,287.96	8	7,911.00
GABAPENTIN	2,562	62,202.04	562	110.68
DEPAKOTE SPRINKLE	412	61,378.27	79	776.94
BENZACLIN	575	61,036.53	250	244.15
DIFFERIN	440	61,005.47	225	271.14
AMBIEN CR	423	60,169.09	84	716.3
DAYTRANA	459	59,118.31	110	537.44
CEPHALEXIN	4,046	58,969.89	3,375	17.47
NOVOLOG MIX 70-30	262	56,867.06	48	1,184.73
COMBIVENT	507	56,509.43	139	406.54
DIVALPROEX SODIUM	1,831	55,483.98	266	208.59
LIDODERM	259	55,393.39	113	490.21
ARIMIDEX	166	55,268.75	22	2,512.22
PAROXETINE HCL	1,954	54,689.88	415	131.78
SUTENT	7	54,042.87	1	54,042.87
SERTRALINE HCL	5,550	53,217.97	1,299	40.97
CELEBREX	435	52,715.16	136	387.61
DESMOPRESSIN ACETATE	572	51,345.59	126	407.5
TRAMADOL HCL	5,305	50,927.80	1,845	27.6
TEGRETOL XR	590	46,681.71	65	718.18
NEXIUM	285	46,491.14	59	787.99
NUVARING	773	45,848.77	223	205.6
DIASTAT ACUDIAL	174	45,678.16	72	634.42
SYMBICORT	249	45,566.26	93	489.96
LISINOPRIL	4,973	45,543.80	883	51.58
CEFPROZIL	1,335	45,162.70	1,080	41.82
REBIF	18	44,979.68	3	14,993.23
ZETIA	437	44,862.46	59	760.38
LUNESTA	323	44,818.52	68	659.1
SULFAMETHOXAZOLE-TRIMETHOPRIM	3,834	43,920.10	2,800	15.69
METFORMIN HCL	3,908	43,741.22	771	56.73

Top 250 Drugs by Total Claims Cost				
10/06/08-10/05/09				
Drug Name	Total Claims	Total Claims Cost	Total Patients	Cost Per Patient
AMPHETAMINE SALT COMBO	1,890	42,884.69	413	103.84
NASONEX	541	41,912.52	270	155.23
ALPRAZOLAM	5,154	41,837.87	1,045	40.04
KADIAN	160	41,357.95	17	2,432.82
CLONIDINE HCL	4,470	41,252.48	767	53.78
ORTHO TRI-CYCLEN LO	769	40,308.04	198	203.58
CELLCEPT	73	39,978.92	16	2,498.68
BUPROPION HCL SR	814	39,848.31	250	159.39
MAXALT	174	39,255.89	69	568.93
IBUPROFEN	5,264	38,837.98	3,244	11.97
FELBATOL	129	38,216.79	16	2,388.55
TRAZODONE HCL	4,775	37,400.99	1,178	31.75
CARBATROL	331	36,810.52	35	1,051.73
ZOLPIDEM TARTRATE	4,443	36,596.41	1,079	33.92
BYETTA	152	36,044.46	34	1,060.13
POLYETHYLENE GLYCOL	1,572	35,760.07	610	58.62
NASACORT AQ	406	35,727.33	180	198.49
ACETAMINOPHEN-CODEINE	4,018	34,638.27	2,863	12.1
AVONEX ADMINISTRATION PACK	14	34,541.90	2	17,270.95
OXYBUTYNIN CHLORIDE ER	380	34,028.51	65	523.52
OXYCODONE-ACETAMINOPHEN	3,492	33,926.86	1,791	18.94
PROPRANOLOL HCL	1,802	33,708.98	404	83.44
CYCLOBENZAPRINE HCL	3,979	33,491.51	1,880	17.81
METOPROLOL SUCCINATE	1,135	33,455.20	238	140.57
TRI-SPRINTEC	1,233	32,428.31	311	104.27
PREMARIN	587	32,107.16	160	200.67
VIGAMOX	531	31,883.91	488	65.34
TOPIRAMATE	907	31,672.03	280	113.11
FLOMAX	261	31,190.39	57	547.2
FLUTICASONE PROPIONATE	1,494	31,174.88	792	39.36
ORTHO EVRA	546	30,868.90	157	196.62
MIRENA	59	30,306.78	59	513.67
ZOFRAN	13	30,018.49	5	6,003.70
CITALOPRAM HBR	2,631	29,970.01	666	45
JANUVIA	175	29,769.79	36	826.94
RISPERDAL M-TAB	187	29,663.97	30	988.8
PROMETHAZINE HCL	2,215	29,556.44	1,356	21.8
ELIDEL	272	29,243.76	172	170.02
VYTORIN	295	29,158.14	45	647.96
PRISTIQ	250	28,393.18	90	315.48
MEDROXYPROGESTERONE ACETATE	750	28,043.14	408	68.73
HUMULIN 70-30	234	27,723.21	32	866.35
MORPHINE SULFATE	925	27,550.14	185	148.92

Top 250 Drugs by Total Claims Cost				
10/06/08-10/05/09				
Drug Name	Total Claims	Total Claims Cost	Total Patients	Cost Per Patient
ALDARA	111	27,527.74	84	327.71
PATANOL	343	27,457.87	215	127.71
FOCALIN	433	27,254.72	111	245.54
SIMVASTATIN	2,418	26,964.46	470	57.37
PROMETHAZINE-CODEINE	2,698	26,945.37	1,942	13.88
NORDITROPIN NORDIFLEX	20	26,904.08	3	8,968.03
RELPAX	158	26,877.70	51	527.01
HUMALOG MIX 75-25	100	26,160.91	16	1,635.06
PROPOXYPHENE NAPSYLATE-APAP	2,392	25,372.05	1,112	22.82
LEVOCARNITINE	414	25,311.05	59	429
FURADANTIN	85	25,279.82	45	561.77
RANITIDINE HCL	1,546	25,269.11	586	43.12
OCELLA	525	25,249.16	141	179.07
MIRTAZAPINE	1,769	25,114.00	427	58.81
HYDROXYZINE HCL	1,064	24,750.47	501	49.4
ULTRAM ER	141	24,747.34	37	668.85
MINOCYCLINE HCL	844	24,415.54	244	100.06
HUMULIN N	251	24,129.92	70	344.71
AVANDIA	131	24,070.04	18	1,337.22
BACTROBAN	403	23,820.08	329	72.4
POTASSIUM CHLORIDE	1,306	23,332.79	313	74.55
VENLAFAXINE HCL ER	240	23,156.58	63	367.56
ASACOL	85	22,473.09	16	1,404.57
GABITRIL	66	22,357.13	11	2,032.47
CUBICIN	15	22,337.54	3	7,445.85
PREDNISONE	2,963	22,324.45	1,676	13.32
AUGMENTIN	195	22,165.93	177	125.23
IPRATROPIUM-ALBUTEROL	473	22,143.10	189	117.16
KEPPRA XR	82	22,007.31	15	1,467.15
ARICEPT	130	21,871.25	20	1,093.56
MAXALT MLT	137	21,725.19	60	362.09
MUPIROCIN	1,277	21,613.03	1,070	20.2
CLINDAMYCIN HCL	1,145	21,132.38	913	23.15
LITHIUM CARBONATE	895	20,803.90	144	144.47
FUROSEMIDE	2,949	20,702.31	586	35.33
ACIPHEX	117	20,361.95	20	1,018.10
TRIAMCINOLONE ACETONIDE	2,107	20,358.52	1,433	14.21
SPRYCEL	3	20,330.22	1	20,330.22
ENTOCORT EC	39	20,176.45	7	2,882.35
CETIRIZINE HCL	1,625	20,079.86	634	31.67
CLEOCIN PALMITATE	141	19,901.65	112	177.69
JOLESSA	176	19,853.23	107	185.54
NYSTATIN	1,544	19,849.63	1,144	17.35

Top 250 Drugs by Total Claims Cost				
10/06/08-10/05/09				
Drug Name	Total Claims	Total Claims Cost	Total Patients	Cost Per Patient
ONDANSETRON HCL	793	19,789.66	401	49.35
FORTEO	25	19,785.11	4	4,946.28
VERAMYST	239	19,671.70	130	151.32
LORATADINE	2,509	19,585.64	914	21.43
METRONIDAZOLE	1,386	19,543.34	1,120	17.45
CARBAMAZEPINE	941	19,223.50	129	149.02
PHENYTOIN SODIUM EXTENDED	638	19,102.31	107	178.53
MIRAPEX	188	18,851.89	43	438.42
PRILOSEC OTC	870	18,769.14	229	81.96
FLUCONAZOLE	2,094	18,751.31	1,357	13.82
BONIVA	183	18,689.48	28	667.48
DEPAKOTE	168	18,456.00	41	450.15
AVINZA	86	18,428.45	11	1,675.31
FUZEON	7	18,371.04	1	18,371.04
PULMICORT FLEXHALER	163	18,273.87	76	240.45
AVIANE	736	18,251.85	192	95.06
DIOVAN	252	18,188.26	34	534.95
VESICARE	139	18,161.77	22	825.54
CIPROFLOXACIN HCL	1,862	18,120.78	1,497	12.1
RIBAVIRIN	62	18,068.09	19	950.95
HYDROCHLOROTHIAZIDE	2,736	18,065.62	513	35.22
PRENATAL PLUS	2,052	17,571.06	893	19.68
SEASONIQUE	102	17,418.07	58	300.31
PRECISION XTRA	168	17,154.23	47	364.98
COZAAR	322	17,090.31	49	348.78
RHINOCORT AQUA	183	16,856.15	77	218.91
DIAZEPAM	2,230	16,787.98	677	24.8
PENICILLIN V POTASSIUM	1,488	16,775.61	1,206	13.91
FEMARA	46	16,755.07	9	1,861.67
SPIRONOLACTONE	791	16,515.68	180	91.75
NAPROXEN	1,771	16,487.71	1,118	14.75
EPIPEN	202	16,307.69	167	97.65
RESTASIS	102	16,254.52	34	478.07
FOLIC ACID	2,590	16,202.46	439	36.91
LEXIVA	11	16,166.30	1	16,166.30

Top 50 AHFS Therapeutic Classes by Total Claims				
10/06/08-10/05/09				
Therapeutic Class Description	**Total Claims**	**Total Claims Cost**	**Total Patients**	**Cost Per Claim**
ANTIDEPRESSANTS	41,366	1,768,107.22	6,628	42.74
OPIATE AGONISTS	37,908	988,654.69	9,579	26.08
ANTICONVULSANTS, MISCELLANEOUS	21,505	2,226,264.12	2,690	103.52
BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	20,714	228,857.85	4,125	11.05
PENICILLINS	20,628	357,631.32	13,492	17.34
ANTIPSYCHOTIC AGENTS	18,569	4,527,523.57	2,075	243.82
BETA-ADRENERGIC AGONISTS	17,028	1,188,317.01	5,879	69.79
ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	16,618	1,610,556.84	2,393	96.92
NONSTEROIDAL ANTI-INFLAMMATORY AGENTS	15,746	187,058.76	6,546	11.88
MACROLIDES	12,762	266,489.06	9,146	20.88
CONTRACEPTIVES	11,445	469,634.41	2,852	41.03
PROTON-PUMP INHIBITORS	10,833	558,121.15	2,631	51.52
AMPHETAMINES	10,468	1,196,832.66	1,601	114.33
ADRENALS	9,754	669,908.03	4,592	68.68
CEPHALOSPORINS	9,053	254,807.73	6,531	28.15
BENZODIAZEPINES (ANTICONVULSANTS)	7,975	73,740.22	1,251	9.25
BETA-ADRENERGIC BLOCKING AGENTS	7,827	124,817.70	1,426	15.95
ANGIOTENSIN-CONVERTING ENZYME INHIBITORS	7,680	78,851.56	1,320	10.27
ANXIOLYTICS, SEDATIVES & HYPNOTICS,MISC.	7,595	195,379.79	1,942	25.72
THYROID AGENTS	6,558	76,031.97	954	11.59
HMG-COA REDUCTASE INHIBITORS	6,173	372,238.79	977	60.3
LEUKOTRIENE MODIFIERS	6,126	634,970.96	1,543	103.65
CENTRALLY ACTING SKELETAL MUSCLE RELAXNT	6,057	126,885.65	2,318	20.95
INSULINS	6,006	997,704.92	709	166.12
ANTIBACTERIALS (EENT)	5,778	201,303.68	4,485	34.84
CENTRAL ALPHA-AGONISTS	5,616	65,226.61	975	11.61
ANTITUSSIVES	5,555	68,520.46	3,775	12.33
SECOND GENERATION ANTIHISTAMINES	5,311	67,220.63	1,886	12.66
ANTI-INFLAMMATORY AGENTS (SKIN & MUCOUS)	4,799	94,251.40	2,842	19.64
ANALGESICS AND ANTIPYRETICS, MISC.	4,756	24,021.94	2,368	5.05
VITAMIN B COMPLEX	4,635	28,985.07	741	6.25
BIGUANIDES	4,365	49,511.02	839	11.34
DEVICES	4,354	103,135.54	1,285	23.69
SULFONAMIDES (SYSTEMIC)	4,302	51,144.22	3,088	11.89
ANTIBACTERIALS (SKIN & MUCOUS MEMBRANE)	3,801	164,310.94	2,540	43.23
DIABETES MELLITUS	3,326	355,930.73	904	107.01
CORTICOSTEROIDS (EENT)	3,090	156,594.02	1,530	50.68
ANTIFUNGALS (SKIN & MUCOUS MEMBRANE)	3,078	59,872.07	2,126	19.45
LOOP DIURETICS	3,046	22,433.69	601	7.36
MULTIVITAMIN PREPARATIONS	2,930	34,679.62	1,243	11.84
THIAZIDE DIURETICS	2,790	18,684.36	527	6.7
TETRACYCLINES	2,737	41,591.05	1,355	15.2
QUINOLONES	2,731	148,334.60	1,931	54.32

Top 50 AHFS Therapeutic Classes by Total Claims				
10/06/08-10/05/09				
REPLACEMENT PREPARATIONS	2,491	40,036.97	679	16.07
HISTAMINE H2-ANTAGONISTS	2,467	39,977.16	859	16.2
PHENOTHIAZINE DERIVATIVES	2,449	31,996.31	1,526	13.07
CENTRAL NERVOUS SYSTEM AGENTS, MISC.	2,410	324,654.28	458	134.71
AZOLES	2,154	29,353.31	1,386	13.63
IRON PREPARATIONS	2,119	16,827.87	980	7.94
DIHYDROPYRIDINES	2,059	39,217.62	437	19.05

Top 50 AHFS Therapeutic Classes by Total Claims Cost				
10/06/08-10/05/09				
Therapeutic Class Description	**Total Claims**	**Total Claims Cost**	**Total Patients**	**Cost Per Patient**
ANTIPSYCHOTIC AGENTS	18,569	4,527,523.57	2,075	2,181.94
ANTICONVULSANTS, MISCELLANEOUS	21,505	2,226,264.12	2,690	827.61
ANTIDEPRESSANTS	41,366	1,768,107.22	6,628	266.76
ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	16,618	1,610,556.84	2,393	673.03
AMPHETAMINES	10,468	1,196,832.66	1,601	747.55
BETA-ADRENERGIC AGONISTS	17,028	1,188,317.01	5,879	202.13
INSULINS	6,006	997,704.92	709	1,407.20
OPIATE AGONISTS	37,908	988,654.69	9,579	103.21
ADRENALS	9,754	669,908.03	4,592	145.89
LEUKOTRIENE MODIFIERS	6,126	634,970.96	1,543	411.52
HEMOSTATICS	69	605,262.87	9	67,251.43
PROTON-PUMP INHIBITORS	10,833	558,121.15	2,631	212.13
MONOCLONAL ANTIBODIES	337	473,893.61	72	6,581.86
CONTRACEPTIVES	11,445	469,634.41	2,852	164.67
BIOLOGIC RESPONSE MODIFIERS	170	391,219.43	30	13,040.65
DISEASE-MODIFYING ANTIRHEUMATIC AGENTS	248	373,946.57	50	7,478.93
ANTINEOPLASTIC AGENTS	1,043	373,643.64	193	1,935.98
HMG-COA REDUCTASE INHIBITORS	6,173	372,238.79	977	381
PENICILLINS	20,628	357,631.32	13,492	26.51
DIABETES MELLITUS	3,326	355,930.73	904	393.73
CENTRAL NERVOUS SYSTEM AGENTS, MISC.	2,410	324,654.28	458	708.85
SELECTIVE SEROTONIN AGONISTS	1,584	306,624.97	591	518.82
MACROLIDES	12,762	266,489.06	9,146	29.14
CEPHALOSPORINS	9,053	254,807.73	6,531	39.02
BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	20,714	228,857.85	4,125	55.48
ANTICOAGULANTS	1,756	214,035.86	289	740.61
ANTIBACTERIALS (EENT)	5,778	201,303.68	4,485	44.88
THIAZOLIDINEDIONES	1,059	197,361.22	179	1,102.58
ANXIOLYTICS, SEDATIVES & HYPNOTICS,MISC.	7,595	195,379.79	1,942	100.61
NONSTEROIDAL ANTI-INFLAMMATORY AGENTS	15,746	187,058.76	6,546	28.58
SKIN AND MUCOUS MEMBRANE AGENTS, MISC.	1,224	179,010.54	656	272.88
ANTIBACTERIALS (SKIN & MUCOUS MEMBRANE)	3,801	164,310.94	2,540	64.69
NUCLEOSIDES AND NUCLEOTIDES	1,295	159,190.33	577	275.89
ANTIBACTERIALS, MISCELLANEOUS	1,481	157,491.76	1,086	145.02
CORTICOSTEROIDS (EENT)	3,090	156,594.02	1,530	102.35
INTERFERONS	73	155,085.82	20	7,754.29
QUINOLONES	2,731	148,334.60	1,931	76.82
IMMUNOSUPPRESSIVE AGENTS	507	146,949.37	58	2,533.61
ANTIRETROVIRALS	190	140,167.32	18	7,787.07
GENITOURINARY SMOOTH MUSCLE RELAXANTS	1,676	139,589.55	305	457.67
PLATELET-AGGREGATION INHIBITORS	977	138,634.29	157	883.02
ANTIMUSCARINICS/ANTISPASMODICS	1,673	134,199.02	488	275
CENTRALLY ACTING SKELETAL MUSCLE RELAXNT	6,057	126,885.65	2,318	54.74

Top 50 AHFS Therapeutic Classes by Total Claims Cost				
10/06/08-10/05/09				
BETA-ADRENERGIC BLOCKING AGENTS	7,827	124,817.70	1,426	87.53
ENZYMES	80	120,014.55	17	7,059.68
DEVICES	4,354	103,135.54	1,285	80.26
OPIATE PARTIAL AGONISTS	429	102,632.04	102	1,006.20
PITUITARY	631	98,384.25	138	712.93
FIBRIC ACID DERIVATIVES	1,520	97,734.72	248	394.09
ANTI-INFLAMMATORY AGENTS (SKIN & MUCOUS)	4,799	94,251.40	2,842	33.16

ADHD Utilization 08/26/08 - 08/25/09

Label Name	Rx Num	Qty Dispensed	Total Reimb Amt
ADDERALL 20 MG TABLET	4	148	$71.98
ADDERALL XR 10 MG CAPSULE	608	17498	$89,724.29
ADDERALL XR 15 MG CAPSULE	546	16189	$83,648.82
ADDERALL XR 20 MG CAPSULE	1147	45403	$213,149.57
ADDERALL XR 25 MG CAPSULE	477	15304	$74,306.95
ADDERALL XR 30 MG CAPSULE	1226	40721	$201,210.55
ADDERALL XR 5 MG CAPSULE	277	7768	$37,559.06
AMPHETAMINE SALTS 10 MG TAB	776	41693	$17,811.57
AMPHETAMINE SALTS 12.5 MG TB	3	165	$195.39
AMPHETAMINE SALTS 15 MG TAB	60	2640	$2,108.67
AMPHETAMINE SALTS 20 MG TAB	541	29829	$12,115.18
AMPHETAMINE SALTS 30 MG TAB	240	12421	$5,648.66
AMPHETAMINE SALTS 5 MG TAB	449	20144	$9,012.45
AMPHETAMINE SALTS 7.5 MG TAB	12	660	$403.49
CONCERTA 18 MG TABLET SA	458	13034	$46,415.97
CONCERTA 27 MG TABLET SA	411	12129	$42,973.95
CONCERTA 36 MG TABLET SA	1170	42900	$154,697.40
CONCERTA 54 MG TABLET SA	1122	33232	$128,477.80
D-AMPHETAMINE 10 MG CAP SA	12	1440	$1,338.72
D-AMPHETAMINE 15 MG CAP SA	1	60	$73.35
D-AMPHETAMINE 5 MG CAP SA	4	307	$240.01
D-AMPHETAMINE ER 10 MG CAPSULE	242	12908	$18,008.52
D-AMPHETAMINE ER 15 MG CAPSULE	366	22073	$44,949.50
D-AMPHETAMINE ER 5 MG CAPSULE	47	3799	$4,692.22
DAYTRANA 10 MG/9 HR PATCH	129	3827	$17,284.27
DAYTRANA 15 MG/9 HR PATCH	79	2360	$10,466.25
DAYTRANA 20 MG/9 HOUR PATCH	110	3300	$14,505.03
DAYTRANA 30 MG/9 HOUR PATCH	214	6490	$25,988.96
DEXEDRINE SPANSULE 10 MG	2	60	$111.28
DEXEDRINE SPANSULE 15 MG	2	120	$249.92
DEXEDRINE SPANSULE 5 MG	1	60	$90.40
DEXMETHYLPHENIDATE 10 MG TAB	72	3325	$3,752.84
DEXMETHYLPHENIDATE 2.5 MG TAB	38	1950	$1,027.79
DEXMETHYLPHENIDATE 5 MG TAB	77	3072	$2,583.26
DEXTROAMPHETAMINE 10 MG TAB	225	22749	$5,750.76
DEXTROAMPHETAMINE 5 MG TAB	214	18456	$4,609.06
DEXTROSTAT 10 MG TABLET	1	60	$19.60
FOCALIN 10 MG TABLET	204	11599	$15,525.16
FOCALIN 2.5 MG TABLET	9	365	$301.21
FOCALIN 5 MG TABLET	251	12339	$13,051.78
FOCALIN XR 10 MG CAPSULE	476	13655	$51,068.69
FOCALIN XR 15 MG CAPSULE	329	10548	$37,337.37
FOCALIN XR 20 MG CAPSULE	757	24326	$87,591.35
FOCALIN XR 5 MG CAPSULE	184	5193	$17,695.93
METADATE CD 10 MG CAPSULE	355	10502	$33,514.39

ADHD Utilization 08/26/08 - 08/25/09

Label Name	Rx Num	Qty Dispensed	Total Reimb Amt
METADATE CD 20 MG CAPSULE	743	25150	$87,615.15
METADATE CD 30 MG CAPSULE	613	18304	$62,530.44
METADATE CD 40 MG CAPSULE	353	10343	$45,624.51
METADATE CD 50 MG CAPSULE	107	3121	$17,041.09
METADATE CD 60 MG CAPSULE	101	3040	$17,785.55
METADATE ER 10 MG TABLET SA	2	60	$75.44
METHYLIN 10 MG CHEWABLE TABLET	26	1431	$3,781.76
METHYLIN 10 MG TABLET	1312	74614	$22,675.78
METHYLIN 10 MG/5 ML SOLUTION	26	13140	$7,573.05
METHYLIN 2.5 MG CHEWABLE TAB	2	180	$240.28
METHYLIN 20 MG TABLET	948	69087	$26,332.09
METHYLIN 5 MG CHEWABLE TABLET	8	589	$767.55
METHYLIN 5 MG TABLET	726	39791	$10,674.26
METHYLIN 5 MG/5 ML SOLUTION	24	8305	$2,660.35
METHYLIN ER 10 MG TABLET	144	4851	$3,207.89
METHYLIN ER 20 MG TABLET	302	12710	$8,773.71
METHYLPHENIDATE 10 MG TABLET	418	24763	$7,185.28
METHYLPHENIDATE 20 MG TABLET	101	6080	$1,886.89
METHYLPHENIDATE 5 MG TABLET	45	2289	$435.56
METHYLPHENIDATE ER 20 MG TAB	17	660	$373.50
METHYLPHENIDATE SR 20 MG TAB	123	5536	$2,064.12
PROVIGIL 100 MG TABLET	48	1500	$11,503.17
PROVIGIL 200 MG TABLET	360	10483	$112,342.75
RITALIN 10 MG TABLET	2	120	$132.05
RITALIN 20 MG TABLET	4	270	$34.70
RITALIN LA 10 MG CAPSULE	150	4564	$15,226.96
RITALIN LA 20 MG CAPSULE	330	10105	$32,807.21
RITALIN LA 30 MG CAPSULE	202	7043	$19,166.67
RITALIN LA 40 MG CAPSULE	341	10550	$33,623.28
STRATTERA 10 MG CAPSULE	209	7052	$26,774.53
STRATTERA 100 MG CAPSULE	86	2557	$12,678.99
STRATTERA 18 MG CAPSULE	233	8135	$31,792.37
STRATTERA 25 MG CAPSULE	544	17240	$72,242.63
STRATTERA 40 MG CAPSULE	804	25719	$109,129.08
STRATTERA 60 MG CAPSULE	464	13904	$58,628.04
STRATTERA 80 MG CAPSULE	232	6893	$33,705.40
VYVANSE 30 MG CAPSULE	687	17923	$69,004.86
VYVANSE 50 MG CAPSULE	829	21926	$81,991.65
VYVANSE 70 MG CAPSULE	616	17356	$64,869.81
Totals	**26210**	**1054205**	**$2,646,317.77**

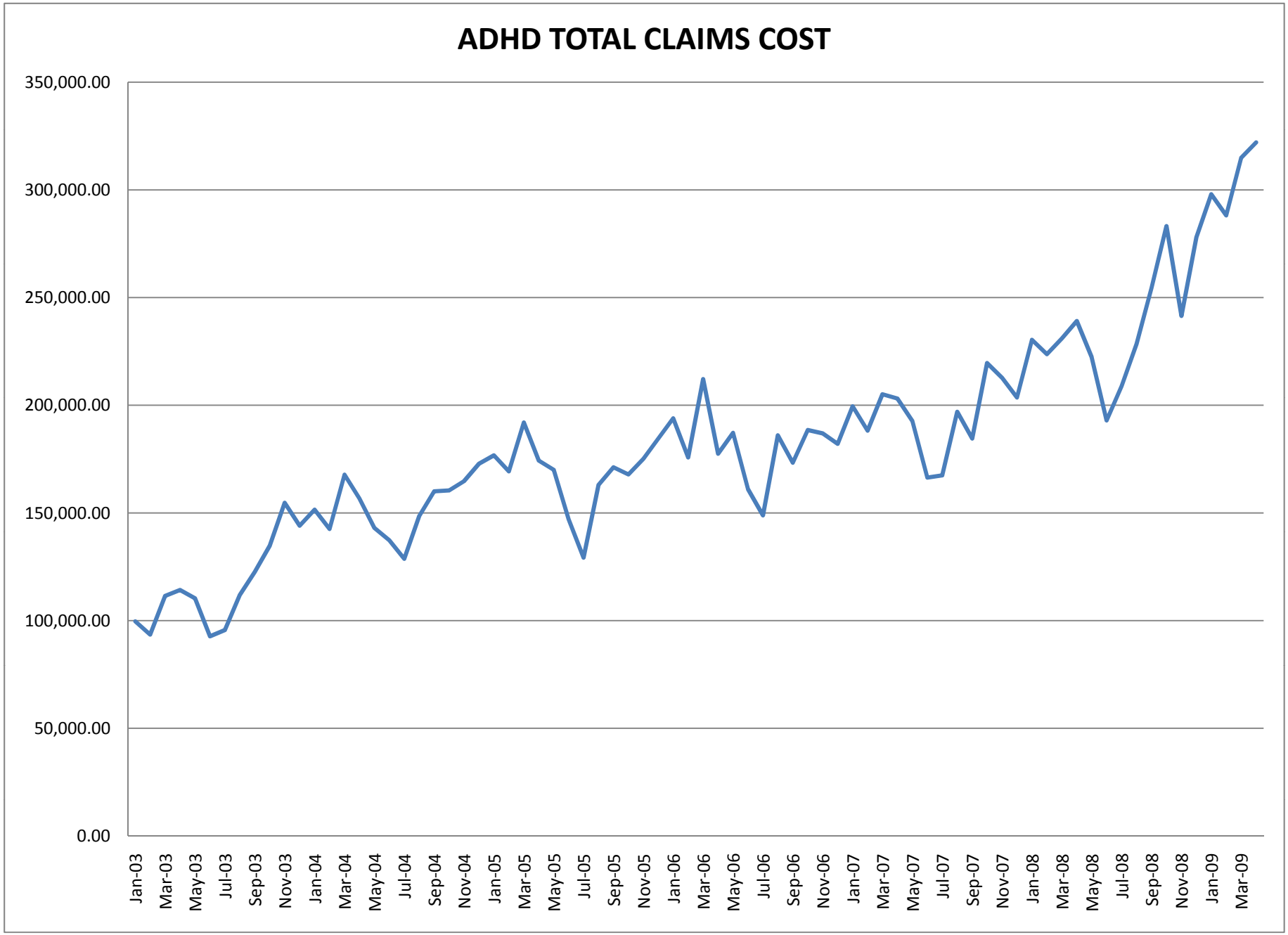
ADHD Utilization patients < 6 08/26/08 - 08/25/09

Label Name	Rx Num	Qty Dispensed	Total Reimb Amt
ADDERALL XR 10 MG CAPSULE	38	1049	$6,357.38
ADDERALL XR 15 MG CAPSULE	22	604	$3,610.77
ADDERALL XR 20 MG CAPSULE	3	90	$565.62
ADDERALL XR 5 MG CAPSULE	37	1017	$5,618.34
AMPHETAMINE SALTS 10 MG TAB	23	806	$420.57
AMPHETAMINE SALTS 5 MG TAB	33	874	$498.71
CONCERTA 18 MG TABLET SA	10	285	$1,161.44
CONCERTA 27 MG TABLET SA	6	180	$669.16
CONCERTA 36 MG TABLET SA	2	60	$168.08
D-AMPHETAMINE ER 10 MG CAPSULE	6	180	$323.04
D-AMPHETAMINE ER 5 MG CAPSULE	6	180	$250.43
DAYTRANA 10 MG/9 HR PATCH	22	660	$3,156.43
DAYTRANA 15 MG/9 HR PATCH	1	30	$81.13
DAYTRANA 20 MG/9 HOUR PATCH	1	30	$77.81
DEXMETHYLPHENIDATE 2.5 MG TAB	3	90	$61.53
DEXMETHYLPHENIDATE 5 MG TAB	1	30	$7.00
DEXTROAMPHETAMINE 10 MG TAB	4	105	$49.49
DEXTROAMPHETAMINE 5 MG TAB	12	735	$192.06
FOCALIN 10 MG TABLET	7	1359	$551.59
FOCALIN 5 MG TABLET	13	600	$660.62
FOCALIN XR 10 MG CAPSULE	14	382	$1,567.63
FOCALIN XR 15 MG CAPSULE	3	90	$406.47
FOCALIN XR 5 MG CAPSULE	16	460	$1,720.51
METADATE CD 10 MG CAPSULE	33	919	$3,100.22
METADATE CD 20 MG CAPSULE	22	615	$2,171.24
METADATE CD 30 MG CAPSULE	8	240	$882.40
METADATE CD 40 MG CAPSULE	5	150	$780.80
METHYLIN 10 MG CHEWABLE TABLET	6	291	$816.40
METHYLIN 10 MG TABLET	23	1345	$420.84
METHYLIN 10 MG/5 ML SOLUTION	2	340	$204.85
METHYLIN 2.5 MG CHEWABLE TAB	2	180	$240.28
METHYLIN 5 MG CHEWABLE TABLET	1	30	$63.74
METHYLIN 5 MG TABLET	70	3635	$986.51
METHYLIN 5 MG/5 ML SOLUTION	8	3450	$1,480.09
METHYLIN ER 10 MG TABLET	1	30	$28.17
METHYLPHENIDATE 10 MG TABLET	24	1605	$409.58
METHYLPHENIDATE 5 MG TABLET	4	270	$61.75
RITALIN LA 10 MG CAPSULE	7	224	$829.05
RITALIN LA 20 MG CAPSULE	9	241	$860.74
STRATTERA 10 MG CAPSULE	30	856	$3,593.15
STRATTERA 18 MG CAPSULE	15	427	$1,849.32
STRATTERA 25 MG CAPSULE	7	164	$841.13
VYVANSE 30 MG CAPSULE	11	292	$1,325.79
VYVANSE 50 MG CAPSULE	6	180	$819.00
Totals	**577**	**25380**	**$49,940.86**

Summary by Age
All Patients Receiving ADHD medications
08/26/08 - 08/25/09

Age	Recip Count	Rx Count
0	3	6
1	2	3
3	5	9
4	34	134
5	66	434
6	129	860
7	210	1412
8	262	1882
9	261	2141
10	281	2108
11	296	2250
12	277	2036
13	239	1706
14	227	1697
15	195	1355
16	191	1427
17	179	1357
18	132	981
19	91	522
20	46	266
21	38	292
22	33	217
23	24	154
24	36	184
25	20	128
26	16	75
27	21	119
28	24	194
29	27	184
30	16	126
31	21	125
32	21	93
33	12	56

Age	Recip Count	Rx Count
34	22	123
35	19	115
36	17	144
37	14	111
38	20	153
39	12	71
40	15	95
41	11	54
42	15	104
43	14	97
44	8	67
45	9	59
46	6	62
47	4	33
48	7	41
49	10	47
50	5	41
51	4	27
52	5	37
53	3	18
54	7	44
55	5	33
56	2	6
57	2	18
58	2	7
59	1	20
60	1	3
61	3	19
62	3	18
63	1	12
64	1	2
65	1	5


ADHD TOTAL CLAIMS COST
350,000.00
300,000.00
250,000.00
200,000.00
150,000.00
100,000.00
50,000.00
0.00
Jan-03
Mar-03
May-03
Jul-03
Sep-03
Nov-03
Jan-04
Mar-04
May-04
Jul-04
Sep-04
Nov-04
Jan-05
Mar-05
May-05
Jul-05
Sep-05
Nov-05
Jan-06
Mar-06
May-06
Jul-06
Sep-06
Nov-06
Jan-07
Mar-07
May-07
Jul-07
Sep-07
Nov-07
Jan-08
Mar-08
May-08
Jul-08
Sep-08
Nov-08
Jan-09
Mar-09

Annual Count of Patients < 6 receiving ADHD medications

2003	0
2004	0
2005	3
2006	7
2007	20
2008	85
first half 2009	85

Annual Count of All Patients receiving ADHD medications

2003	3194
2004	3554
2005	3603
2006	3417
2007	3405
2008	3348
first half 2009	2892

NORTH DAKOTA MEDICAID
RETROSPECTIVE DRUG UTILIZATION REVIEW
CRITERIA RECOMMENDATIONS
4TH QUARTER 2009

Criteria Recommendations ***Approved*** ***Rejected***

1. Tramadol Extended Release / High Dose _____ _____

Alert Message: Ryzolt (tramadol extended-release) may be overutilized. The manufacturer's recommended maximum daily dose is 300 mg. Clinical studies of extended-release tramadol products have not demonstrated a clinical benefit at doses exceeding 300 mg per day.

Conflict Code: ER - Overuse

Util A	Util B	Util C
Ryzolt		

Max Dose: 300 mg/day

References:
Ryzolt Prescribing Information, Dec. 2008, Purdue Pharma L.P.
Facts & Comparisons, 2009 Updates.

2. Tramadol / Therapeutic Duplication _____ _____

Alert Message: Therapeutic duplication of tramadol-containing products may be occurring. The concurrent use of different tramadol-containing products is not recommended. Patients may be receiving excessive amounts of tramadol which can lead to serious adverse effects (e.g., respiratory depression, seizures and death).

Conflict Code: TD – Therapeutic Duplication

Util A	Util B	Util C
Tramadol IR & ER		

References:
Ryzolt Prescribing Information, Dec. 2008, Purdue Pharma L.P.
Facts & Comparisons, 2009 Updates.

3. Tramadol ER / Suicidality and Addiction _____ _____

Alert Message: Extended-release tramadol products (Ultram ER and Ryzolt) should not be prescribed in patients who are suicidal or addiction-prone. Many of the tramadol related deaths have occurred in patients with previous histories of misuse of tranquilizers, alcohol and other CNS-active drugs. If appropriate, consideration should be given to the use of non-narcotic analgesics in these patients.

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

Util A	Util B	Util C
Tramadol ER	Attempted Suicide	
	Suicidality	
	Drug Abuse/Dependence	

References:
Ryzolt Prescribing Information, Dec. 2008, Purdue Pharma L.P.
Ultram ER Prescribing information, Dec. 2007. Ortho-McNeil Pharmaceuticals, Inc.

4. Tapentadol / Overutilization _____ _____

Alert Message: Nucynta (tapentadol) may be over-utilized. The maximum recommended daily dose (after the first day) of tapentadol is 600 mg. Daily doses greater than 700 mg on the first day of therapy and 600mg on subsequent days have not been studied and are not recommended.

Conflict Code: ER - Overutilization

Util A	Util B	Util C
Tapentadol		

Max Dose: 600 mg/day

References:
Nucynta Prescribing Information, March 2009, Ortho-McNeil-Janssen Pharmaceuticals, Inc.
Facts & Comparisons, 2009 Updates.

5. Tapentadol / Impaired Pulmonary Function _____ _____

Alert Message: Nucynta (tapentadol) is contraindicated in patients with impaired pulmonary function (e.g. significant respiratory depression, acute or severe bronchial asthma or hypercapnia in unmonitored settings).

Conflict Code: MC – Drug (Actual) Disease Precaution

Util A	Util B	Util C
Tapentadol	Impaired Respiratory Function	
	Asthma	
	COPD	
	Emphysema	

References:
Nucynta Prescribing Information, March 2009, Ortho-McNeil-Janssen Pharmaceuticals, Inc.
Facts & Comparisons, 2009 Updates.

6. Tapentadol / Paralytic Ileus _____ _____

Alert Message: Nucynta (tapentadol) is contraindicated in patients who have paralytic ileus or are suspected of having paralytic ileus. Tapentadol is a mu-opioid agonist and these agents can cause or exacerbate this condition.

Conflict Code: MC – Drug (Actual) Disease Precaution

Util A	Util B	Util C
Tapentadol	Paralytic Ileus	

References:
Nucynta Prescribing Information, March 2009, Ortho-McNeil-Janssen Pharmaceuticals, Inc.
Facts & Comparisons, 2009 Updates.

7. Tapentadol / MAO Inhibitors _____ _____

Alert Message: Nucynta (tapentadol) is contraindicated in patients who are receiving a monoamine oxidase inhibitor (MAOI) or who have taken a MAOI within the last 14 days due to the potential for elevated norepinephrine (NE) levels which may result in adverse cardiovascular effects. Tapentadol is a mu-opioid agonist as well as a NE reuptake inhibitor.

Conflict Code: DD – Drug/Drug Interaction (Contraindication)

Util A	Util B	Util C
Tapentadol	Isocarboxazid	
	Tranylcypromine	
	Phenelzine	
	Selegiline	

References:
Nucynta Prescribing Information, March 2009, Ortho-McNeil-Janssen Pharmaceuticals, Inc.
Facts & Comparisons, 2009 Updates.

8. Tapentadol / Seizures _____ _____

Alert Message: Nucynta (tapentadol) should be prescribed with caution in patients with a history of seizure disorder or any condition that would put the patient at risk of seizures.

Conflict Code: DB – Drug/Disease and/or (Drug Inferred Disease) Precaution

Util A	Util B			Util C
Tapentadol	Epilepsy	Lacosamide	Tiagabine	
	Seizures	Rufinamide	Valproic	
	Convulsions	Oxcarbazepine	Zonisamide	
	Carbamazepine	Methsuximide	Ethosuximide	
	Phenytoin	Felbamate	Primidone	
	Lamotrigine	Gabapentin		
	Topiramate	Levetiracetam		

References:
Nucynta Prescribing Information, March 2009, Ortho-McNeil-Janssen Pharmaceuticals, Inc.
Facts & Comparisons, 2009 Updates.

9. Tapentadol / CNS Depressants & Alcohol Dependence/Abuse _____ _____

Alert Message: Nucynta (tapentadol) should be prescribed with caution in patients receiving other CNS depressants (e.g. opioid analgesics, phenothiazines, and sedatives) including alcohol. The concurrent use of tapentadol with any of these agents may result in respiratory depression, hypotension, profound sedation, coma or death. If combination therapy is necessary, a dose reduction of one or both agents should be considered.

Conflict Code: DB - Drug/Disease and/or (Drug Inferred Disease) Precaution

Util A	Util B	Util C
Tapentadol	Opioid Analgesics	
	Phenothiazines	
	Sedative/Hypnotics	
	Anxiolytics	
	Anticonvulsants	
	Antipsychotics	
	Sedating Antihistamines	
	Muscle Relaxants	
	Alcohol Dependence	

References:
Nucynta Prescribing Information, March 2009, Ortho-McNeil-Janssen Pharmaceuticals, Inc.
Facts & Comparisons, 2009 Updates.

10. Tapentadol / Serotonergic Drugs _____ _____

Alert Message: Nucynta (tapentadol) should be prescribed with caution in patients taking serotonergic drugs (e.g. SSRIs, SNRI, triptans and MAOIs) due to the risk of developing potentially life-threatening serotonin syndrome.

Conflict Code: DD – Drug/Drug Interaction

Util A	Util B			Util C
Tapentadol	Triptans	TCAs	Lithium	
	Tramadol	Mirtazapine	Fentanyl	
	SSRIs	Bupropion	Zyvox	
	SNRIs	Trazodone	Nefazodone	
	MAOIs	Meperidine		

References:
Nucynta Prescribing Information, March 2009, Ortho-McNeil-Janssen Pharmaceuticals, Inc.
Facts & Comparisons, 2009 Updates.

11. Tapentadol / Severe Renal Impairment _____ _____

Alert Message: The safety and effectiveness of Nucynta (tapentadol) have not been established in patients with severe renal impairment and its use is not recommended in this population.

Conflict Code: DB - Drug/Disease and/or (Drug Inferred Disease) Precaution

Util A	Util B	Util C
Tapentadol	Stage IV Kidney Disease	
	Stage V Kidney Disease	
	ESRD	
	PhosLo	
	Renagel	
	Zemplar	
	Hectorol	
	Fosrenol	

References:
Nucynta Prescribing Information, March 2009, Ortho-McNeil-Janssen Pharmaceuticals, Inc.
Facts & Comparisons, 2009 Updates.

12. Tapentadol / Hepatic Impairment _____ _____

Alert Message: Nucynta (tapentadol) should be used with caution in patients with moderate hepatic impairment due to the potential for higher serum levels and risk for adverse effects. Treatment should be initiated at 50 mg with the interval between doses no less than every 8 hours (max 3 doses in 24 hrs). Tapentadol has not been studied in patients with severe hepatic impairment and its use is not recommended in this population.

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

Util A	Util B	Util C
Tapentadol	Hepatic Impairment	

References:
Nucynta Prescribing Information, March 2009, Ortho-McNeil-Janssen Pharmaceuticals, Inc.
Facts & Comparisons, 2009 Updates.

13. Tapentadol / Pancreatic & Biliary Tract Disease _____ _____

Alert Message: Nucynta (tapentadol) should be used with caution in patients with biliary tract disease, including acute pancreatitis. Tapentadol is a mu-opioid receptor (MOR) agonist and may cause spasms of the Sphincter of Oddi.

Conflict Code: MC – Drug (Actual) Disease Precaution
Drug/Disease:

Util A	Util B	Util C
Tapentadol	Acute Pancreatitis	
	Choledocholithiasis	
	Obstruction of Bile Duct	
	Spasm of Sphincter of Oddi	

References:
Nucynta Prescribing Information, March 2009, Ortho-McNeil-Janssen Pharmaceuticals, Inc.
Facts & Comparisons. 2009 Updates.

14. Lacosamide / Overutilization _____ _____

Alert Message: Vimpat (lacosamide) may be over-utilized. The recommended maintenance dosage range is 200 to 400 mg/day. In clinical trials, the 600 mg daily dose was not more effective than the 400 mg daily dose and was associated with a substantially higher rate of adverse reactions.

Conflict Code: ER - Overutilization

Util A	Util B	Util C
Lacosamide		

Max Dose: 400 mg/day

References:
Vimpat Prescribing Information, Jan. 2009, Schwarz Biosciences.

15. Lacosamide / PR Prolongation Drugs _____ _____

Alert Message: Vimpat (lacosamide) should be used with caution in patients receiving other drugs that prolong the PR interval (e.g. beta blockers, calcium channel blockers, digoxin and 1A & 1C antiarrhythmics) due to risk of additive effect on the PR interval. Lacosamide can cause a small dose-dependent increase in the mean PR interval (4.2-4.6 ms).

Conflict Code: DD – Drug/Drug Interaction

Util A	Util B		Util C
Lacosamide	Beta Blockers	Quinidine	
	Digoxin	Procainamide	
	Atazanavir	Disopyramide	
	Ritonavir	Flecainide	
	CCBs	Propafenone	
	Amiodarone		

References:
Vimpat Prescribing Information, Jan. 2009, Schwarz Biosciences.
Facts & Comparisons, 2009 Updates.

16. Lacosamide / Cardiac Conduction Problems _____ _____

Alert Message: Vimpat (lacosamide) should be used with caution in patients with known cardiac conduction problems (e.g., marked 1st degree AV block, 2nd degree or higher AV block, sick sinus syndrome without pacemaker) or with severe cardiac disease (myocardial ischemia and heart failure). Lacosamide can cause a small dose-dependent increase in the mean PR interval (4.2-4.6 ms) potentially exacerbating existing conditions.

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

Util A	Util B	Util C
Lacosamide	1st Degree AV Block	
	2nd Degree AV Block	
	Myocardial Ischemia	
	Heart Failure	

References:
Vimpat Prescribing Information, Jan. 2009, Schwarz Biosciences.
Facts & Comparisons, 2009 Updates.

17. Lacosamide / Renal Impairment _____ _____

Alert Message: A maximum dose of 300 mg per day of Vimpat (lacosamide) is recommended for patients with severe renal impairment (CrCl ≤ 30mL/min) and end stage renal disease. In clinical trials the AUC of lacosamide was increased 60% in patients with severe renal impairment.

Conflict Code: ER – Overutilization

Util A	Util B	Util C (Required)
Lacosamide		Severe Renal Impairment
		End Stage Renal Disease

Maximum Dose: 300 mg/day

References:
Vimpat Prescribing Information, Jan. 2009, Schwarz Biosciences.
Facts & Comparisons, 2009 Updates.

18. Lacosamide / Hepatic Impairment _____ _____

Alert Message: A maximum dose of 300 mg per day of Vimpat (lacosamide) is recommended for patients with mild to moderate hepatic impairment. In clinical trials, the AUC of lacosamide was increased 50 - 60% in patients with mild to moderate hepatic impairment. Lacosamide use has not been evaluated in patients with severe hepatic impairment and is therefore not recommended.

Conflict Code: ER – Overutilization

Util A	Util B	Util C (Required)
Lacosamide		Hepatic Impairment

Max Dose: 300 mg/day

References:
Vimpat Prescribing Information, Jan. 2009, Schwarz Biosciences.
Facts & Comparisons, 2009 Updates.

19. Propoxyphene / Black Box Warning _____ _____

Alert Message: Propoxyphene-containing products should not be prescribed to patients who are suicidal or addiction prone. Many propoxyphene-related deaths have occurred in patients with histories of emotional disturbances, suicidal ideation or attempts, or misuse of tranquilizers, alcohol, and other CNS-active drugs.

Conflict Code: MC – Drug (Actual) Disease Warning/Precaution **(Black Box Warning)**

Util A	Util B	Util C
Propoxyphene	Suicidality	
	Addiction	

References:
FDA News & Events, FDA Takes Action on Darvon, other Pain Medications Containing Propoxyphene. July 7, 2009.
Available at: www.fda.gov/NewsEvent/Newsroom/PressAnnoucements/ucm170769.htm
Facts & Comparisons, 2009 Updates.

20. Propoxyphene / Black Box Warning _____ _____

Alert Message: The maximum recommended dose of propoxyphene napsylate is 600 mg per day and 390 mg per day for propoxyphene hydrochloride. Exceeding the maximum dose of propoxyphene may result in accumulation of the parent compound and the active metabolite causing an increased risk of adverse reactions and sometimes fatal overdose. Fatalities within the first hour of overdosage are not uncommon.

Conflict Code: ER – Overutilization **(Black Box Warning)**

Util A	Util B	Util C
Propoxyphene		

Max Dose: 600mg/day napsylate and 390mg/day hydrochloride

References:

FDA News & Events, FDA Takes Action on Darvon, other Pain Medications Containing Propoxyphene. July 7, 2009. Available at: www.fda.gov/NewsEvent/Newsroom/PressAnnoucements/ucm170769.htm
Facts & Comparisons, 2009 Updates.

21. Atomoxetine / Liver Injury _____ _____

Alert Message: Postmarketing reports indicate that Strattera (atomoxetine) can cause severe liver injury. Atomoxetine should be discontinued in patients with jaundice or laboratory evidence of liver injury, and should not be restarted. Liver enzyme levels should be obtained at the first sign or symptom of liver dysfunction.

Conflict Code: TA – Therapeutic Appropriateness
Drug/Disease:

Util A	Util B	Util C
Atomoxetine		

References:

Strattera Prescribing Information, June 2009, Eli Lilly and Company.
Facts & Comparisons, 2009 Updates.
Clinical Pharmacology, Gold Standard 2009.
FDA Drug Safety Newsletter Postmarket Reviews – Volume 2, Number 1, 2009. Atomoxetine (Marketed as Strattera): Serious Lever Injury
Available at: http://www.fda.gov/downloads/Drugs/DrugSafety/DrugSafetyNewsletter/ucm107318.pdf