ORDERING OFFICE, ALSO FAX:
- Most recent labs
- Supporting clinicals / Recent H&P
- Insurance card, front and back

Alemtuzumab (Lemtrada)

Physician Order Form

IVX HEALTH formerly Infusion Express

Date:	Patient Name:	DOB:
ICD-10 code (required):	ICD-10 description:	
☐ NKDA Allergies:		Weight lbs/kg:
Ordering Provider:	Provider NPI:	
Referring Practice Name:	Phone:	Fax:
Practice Address:	City:	State: Zip Code:
Patient REMS ID:	Provider REMS ID:	

SUPPORTING DOCUMENTATION (Referring provider office: Please provide the following)

- ☑ Ensure baseline labs have been drawn. (Please provide results) _____
- ☑ Ensure patient has taken and is prescribed an anti-viral. ☐ Acyclovir 400mg _____
- ☑ Home medications ☐ Zyrtec 10mg ☐ Hydroxyzine 50mg ☐ Zantac 150mg or Pepcid 20mg- (Staff to verify if patient has taken prior to arrival, if patient did not take staff will administer.)

NURSING

- ☑ Provide nursing care per IVX Standard Nursing Procedures, including reaction management and post-infusion observation
- ☑ Verify both patient and provider are enrolled and authorized in Lemtrada REMS program.
- ☑ Ensure REMS authorization call has been completed prior to infusion.
- ☑ Provide patient with What You Need to Know about Lemtrada Treatment and Infusion Reactions: A Patient Guide
- ☑ Complete and submit LEMTRADA REMS Infusion Checklist upon completion of each treatment cycle.

LABORATORY ORDERS

- ☐ CBC with differential on days: _____
- ☐ CMP on days: _____
- ☐ Other: _____ on days: _____

PRE-MEDICATION ORDERS (All pre-medications will be given at least 30 minutes prior to Lemtrada infusion)

- ☑ acetaminophen (Tylenol) 1000mg PO each day
- ☑ diphenhydramine (Benadryl) 50mg PO each day
- ☑ methylprednisolone (Solu-Medrol) 1000mg IV mixed in 100ml 0.9% NS over 1 hour on days 1, 2, 3 of each cycle treatment

(Unless contraindicated the above pre-medications will be given with each infusion treatment cycle. For additional pre-medications, select from the following below.)

- ☐ ibuprofen (Advil) 400mg PO (If indicated, acetaminophen will be held)
- ☐ cetirizine (Zyrtec) 10mg PO
- ☐ loratadine (Claritin) 10mg PO
- ☐ ranitidine (Zantac) 150mg PO
- ☐ methylprednisolone (Solu-Medrol) _____mg IV mixed in _____ml NS over 1 hour on days:_____
- ☐ dexamethasone 80mg IV mixed in 100ml NS over 1 hour on days:_____
- ☐ Other: Dose: Route: Frequency:

INFUSION THERAPY

☐ Alemtuzumab (Lemtrada) year one
- ☑ Dose: 12mg
- ☑ Route: intravenous infusion
- ☑ Frequency: daily for five days
- ☑ Mix in 100ml 0.9% sodium chloride, infuse over four hours (protect from light)
- ☑ Flush with 0.9% sodium chloride at the completion of infusion (infuse at same rate as Lemtrada)
- ☑ Patient is required to stay for 120-minute observation post infusion

☐ Alemtuzumab (Lemtrada) year two/subsequent frequent course
- ☑ Dose: 12mg
- ☑ Route: intravenous infusion
- ☑ Frequency: daily for three days
- ☑ Mix in 100ml 0.9% sodium chloride, infuse over four hours (protect from light)
- ☑ Flush with 0.9% sodium chloride at the completion of infusion (infuse at same rate as Lemtrada)
- ☑ Patient is required to stay for 120-minute observation post infusion

Ordering Provider: Initial here _____ and proceed to the next page.

PRN MEDICATIONS (Will be given based on patient assessment.)

- ☑ acetaminophen (Tylenol) 650mg PO every 6 hours for **mild** pain or fever (alternate with ibuprofen)
- ☑ ibuprofen (Advil) 400mg PO every 4 hours for **mild** pain or fever (alternate with acetaminophen)
- ☑ ketorolac (Toradol) 30mg SIVP x 1 for **moderate to severe** pain/headache (Do not give with elevated creatinine. If pain/headache not relieved 15-20 minutes after administration notify provider. Consider stopping infusion and transfer to an acute care setting.)
- ☑ diphenhydramine (Benadryl) 25-50mg PO every 4 hours for **mild** itching or hives
- ☑ hydroxyzine 50mg PO every 12 hours for **mild** itching or hives (consider if diphenhydramine already given)
- ☑ diphenhydramine 25-50mg SIVP, for **severe** itching, rash, or shortness of breath. May repeat 25-50mg SIVP x 1
- ☑ ondansetron (Zofran) 4mg SIVP every 4-6 hours for nausea/vomiting, may repeat 4mg SIVP x1 for a max dose of 8mg

Hypertension management

SBP > 30mmhg above baseline or SBP > or = 160

- ☑ clonidine 0.1mg PO x 1

SBP > 40mmhg above baseline or BP > or = 170/100 Notify provider and repeat VS q 5 minutes

- ☑ hydralazine 10mg SIVP over 2-3 minutes, may repeat dose x 1 in 20 minutes (Do not give if heart rate >100 BPM)

Infusion/monitoring parameters

- ☑ **If any of the following below are present, stop infusion, monitor vital signs every 5 minutes and notify provider.**
- ☑ **If blood pressure remains >40mmhg above baseline or ≥ 170/100 after administration of PRN medications.**
- ☑ **If chest pain, pressure or tightness that is not relieved with PRN medication administration.**
- ☑ **If heart rate < 50 or > 110 and patient symptomatic; dizziness, shortness of breath, chest pain, pressure or discomfort.**
- ☑ **If SPO2 < 92% with or without supplemental oxygen.**
- ☑ **Any sudden onset or change in neurological symptoms.**

GENERAL PLAN COMMUNICATION

Special instructions/notes:

Reaction Management

- ☑ Observe for **hypersensitivity reaction:** Fever, chills, rigors, pruritus, rash, cough, sneezing, throat irritation
- ☑ If reaction occurs:
  - Stop infusion
  - Maintain/establish vascular access
  - Notify referring provider
  - Consider giving the following PRN if not previously given
    1. Acetaminophen (Tylenol) 650mg PO **OR**_____mg for pain or fever > 38 C/100.4 F
    2. Diphenhydramine (Benadryl) 25-50mg in 10ml NS slow IV push for rash, itching, pruritis
    3. Ranitidine 25mg in 10ml NS slow IV push over 5 minutes (Consider if patient already given IV Benadryl)
    4. Ondansetron (Zofran) 4mg Slow IV push over 5 minutes for nausea or vomiting
    5. Methylprednisolone (Solumedrol) 125mg **OR** _____mg slow IV push
    6. Other _____
  - When symptoms resolve resume infusion at 50% previous rate and increase per manufactures guidelines

Ordering Provider: Initial here _____ and proceed to the next page.

☑ **Severe allergic/anaphylactic reaction:**

- If symptoms are rapidly progressing or continuing after administration of prn medications above and signs symptoms of severe allergic/anaphylactic reaction (angioedema, swelling of the mouth, tongue, lips, or airway, dyspnea, bronchospasm with or without hypotension or hypertension.)
  1. Call 911
  2. Consider giving epinephrine (1:1000 strength) 0.3ml IM. May repeat every 5-15 minutes to a maximum of 3 doses.
  3. Treat hypotension with 500ml 0.9% sodium chloride bolus. Repeat as needed to maintain systolic BP >90.
  4. Have oxygen by nasal canula available and administer 2-15 liters, titrate to keep Spo2 >92%
  5. Have Automated External Defibrillator available
  6. Notify referring provider. If unable to reach referring provider, notify Local Medical Director.
  7. Discontinue treatment

Premedicate patients with high dose corticosteroids (1,000 mg methylprednisolone or equivalent) immediately prior to LEMTRADA infusion and for the first 3 days of each treatment course.

Administer anti-viral prophylaxis for herpetic viral infections starting on the first day of each treatment course and continue for a minimum of two months following treatment with LEMTRADA or until the CD4+ lymphocyte count is at least 200 cells per microliter, whichever occurs later

Observe patients for infusion reactions during and for at least 2 hours after each LEMTRADA infusion.

Conduct the following laboratory tests at baseline and at periodic intervals until 48 months after the last treatment course of LEMTRADA in order to monitor for early signs of potentially serious adverse effects:

- Complete blood count (CBC) with differential (prior to treatment initiation and at monthly intervals thereafter)
- Serum creatinine levels (prior to treatment initiation and at monthly intervals thereafter)
- Urinalysis with urine cell counts (prior to treatment initiation and at monthly intervals thereafter)
- A test of thyroid function, such as thyroid stimulating hormone (TSH) level (prior to treatment initiation and every 3 months thereafter)
- Serum transaminases (alanine aminotransferase [ALT] and aspartate aminotransferase [AST]) and total bilirubin levels (prior to treatment initiation and periodically thereafter)

Providers choosing to refer patients for Lemtrada infusions must complete this order set. Outside order sets will not be accepted. Please direct any questions or comments regarding the use of this order set to Matt Munden, RN Director of Nursing or Andrew Lasher, MD Chief Medical Officer.

Patient Name _____ **Patient Date of Birth** _____

Provider Name (Print) _____

Provider Signature _____ **Date** _____

Designate the desired location and fax the order form to:

CALIFORNIA fax: (844) 889-0275 | ☐ San Mateo ☐ Fremont ☐ San Ramon ☐ TBD

ILLINOIS fax: (312) 253-7244 | ☐ Glenview ☐ Schaumburg ☐ TBD

KANSAS / MISSOURI fax: (844) 900-1292 | ☐ Overland Park, KS ☐ Lee's Summit, MO ☐ Briarcliff, MO ☐ TBD

OHIO fax: (844) 627-2675 | ☐ Dublin ☐ Pickerington ☐ TBD

PENNSYLVANIA fax: (844) 820-9641 | ☐ Malvern ☐ Bensalem ☐ Montgomeryville ☐ East Shore ☐ West Shore ☐ TBD

TENNESSEE fax: (844) 627-2518 | ☐ Brentwood ☐ Hendersonville ☐ TBD

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