

# Alemtuzumab (Lemtrada)

## Provider Order Form

### PATIENT INFORMATION

Date:	Patient Name:	DOB:
ICD-10 code (required):	ICD-10 description:	
<input type="checkbox"/> NKDA Allergies:	Weight lbs/kg:	
<b>Patient Status:</b> <input type="checkbox"/> New to Therapy <input type="checkbox"/> Continuing Therapy	Next Due Date (if applicable):	

### PROVIDER INFORMATION

Ordering Provider:	Provider NPI:		
Referring Practice Name:	Phone:	Fax:	
Practice Address:	City:	State:	Zip Code:

### SUPPORTING DOCUMENTATION

- Ensure baseline labs have been drawn & provide results: \_\_\_\_\_
- Ensure patient has taken & prescribed an anti-viral:  
 Acyclovir 400mg \_\_\_\_\_
- Home medications:  Zyrtec 10mg /  Hydroxyzine 50mg /  Zantac 150mg /  Pepcid 20mg (Staff to verify patient has taken.)

### NURSING

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

### LABORATORY ORDERS

- CBC with differential on days: \_\_\_\_\_
- CMP on days: \_\_\_\_\_
- Other: \_\_\_\_\_

### PRE-MEDICATION ORDERS (REQUIRED)

- 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 will be given with each treatment cycle.

### PRE-MEDICATION ORDERS (ADDITIONAL)

- 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: \_\_\_\_\_

### THERAPY ADMINISTRATION

- Alemtuzumab** (Lemtrada) year one
  - Dose & Route: 12mg intravenous infusion
  - Frequency: daily for 5 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 & Route: 12mg intravenous infusion
  - Frequency: daily for 3 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 required to stay for 120-min observation post infusion

**Ordering Provider: Initial here \_\_\_\_\_ and proceed to the next page.**

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## PRN MEDICATIONS

### (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)

## SPECIAL INSTRUCTIONS

## 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  $\geq$  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.**

\*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.**

**Ordering Provider: Initial here \_\_\_\_\_ and proceed to the next page.**

## ADULT REACTION MANAGEMENT PROTOCOL

- Observe for **hypersensitivity reaction**: Fever, chills, rigors, pruritus, rash, cough, sneezing, throat irritation, nausea, vomiting.
- If reaction occurs:
  - If indicated, stop infusion.
  - Maintain/establish vascular access.
  - IVX Health clinicians have the following PRN medications available for the following reactions.
    - Headache, pain, fever >100.4F, chills or rigors- Acetaminophen 650mg PO or Ibuprofen 400mg PO.
    - Rhinitis, allergies, hives, pruritis and other nonspecific symptoms of allergic reaction - Loratadine 10mg PO or Diphenhydramine 25-50mg PO or IV
    - Nausea, vomiting, heartburn, acid reflux- Ondansetron 4mg ODT (may repeat x 1 in 20 minutes if nausea continues, max dose 8mg) or Famotidine 20mg PO.
    - Severe Nausea, vomiting, heartburn, acid reflux- Ondansetron 4mg SIVP (may repeat x 1 in 20 minutes if nausea continues, max dose 8mg) or Famotidine 20mg SIVP.
    - Hypotension (90/60), vasovagal response- Place patient in reclined position, administer 0.9% Sodium Chloride IV 500ml. May repeat to keep BP >90/60, maximum of 1000ml, monitor vital signs.
    - Hypertension (>30 mmHg increase from baseline or >180 mmHg SBP): Clonidine 0.1mg and wait 45 minutes, may administer Amlodipine 5mg if hypertension persists
    - Chest pain/discomfort, shortness of breath- Oxygen 2-15 liters, titrate to keep Spo2 >92%.
    - Famotidine 20mg IV- Refractory to other treatments given
    - Solumedrol 125mg IV- Refractory to other treatments given.
  - When symptoms resolve resume infusion at 50% previous rate and increase per manufactures guidelines.
  - Notify referring provider as clinically appropriate and follow clinical escalation protocol.
- 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).
    - Call 911.
    - Initiate basic life support as needed.
    - Bring the **AED** to the patient (Attach pads if indicated).
    - **Epinephrine**- administer 0.3mg of a 1:1,000 (1mg/ml) concentration intramuscularly (preferably outer thigh), may be repeated every 5-15 minutes as needed to a maximum of 3 doses.
    - Place patient in recumbent position, elevate lower extremities.
    - **Oxygen**- administer 2-15 liters/minute or 100 percent oxygen as needed maintain SpO2 >92 percent.
    - **IV Fluids**- Treat hypotension with normal saline bolus of 500ml, repeat as needed to maintain systolic BP >90.
    - Administer **diphenhydramine** 50mg IV or Famotidine 20mg IVP, if not previously given.
    - Administer **methylprednisolone** 125mg IVP, if not previously given.
    - Continuous monitoring of blood pressure, pulse oximetry, and heart rate.
    - Notify clinical executive, DON or CMO, when appropriate. Must be done same day. Do not delay treatment.

\_\_\_\_\_  
Patient Name

\_\_\_\_\_  
Patient Date of Birth

\_\_\_\_\_  
Provider Name (Print)

\_\_\_\_\_  
Provider Signature

\_\_\_\_\_  
Date

**Email [ivxintake@ivxhealth.com](mailto:ivxintake@ivxhealth.com) or fax this form, insurance card (both sides), demographics, recent H&P, labs, and supporting clinicals to:**

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