Diagnosis: ____________________________

Allergies: ____________________________

Height (required) ________ cms   Weight (required) ________ kg   BSA (required if applicable) ________ m^2

Hepatitis B testing complete ___ / ___ / ___ (date). (No risk factors - hepatitis B surface antigen (HBSAg) and hepatitis B core antibody (HBC Ab); if history or has risk factors should include testing for e-antigen.)

HOLD TREATMENT AND NOTIFY PHYSICIAN FOR THE FOLLOWING PARAMETERS:

__________________________________________________________________________________________________

Start treatment on ____________________________ (day 1)  Cycle # ______ of ______

Notify physician if patient has been on blood pressure medicine in past 24 hrs.

Have patient empty bladder before starting infusion.

Monitoring Parameters:
1. Vital signs at baseline and every 15 minutes for the first hour or until stable, then every 30 minutes until completion of the rituximab infusion. After completion, if inpatient, do vital signs every 8 hours.
2. Pulse oximetry at baseline and PRN dyspnea.

Labs: Baseline CBC, differential, comprehensive metabolic profile (do not need to wait for labs to start rituximab)

IV: 0.9% sodium chloride 1000 ml. Infuse at - □ 20 ml/hr (KVO) □ 50 ml/hr □ 100 ml/hr

Premedications for administration 30-60 minutes prior to rituximab:

- ✔ Acetaminophen (Tylenol) 650 mg PO once
- ✔ Diphenhydramine (Benadryl) 50 mg IV once prior to 1st rituximab dose, then 50 mg PO prior to subsequent doses
- □ Methylprednisolone (Solu Medrol) _______ mg IV Push
- Other __________________________________________________________________________________

PRN Medication

- ✔ Meperidine (Demerol) 25 mg IV push Q15 minutes x 2 doses PRN chills/rigors during Rituximab infusion
- ✔ Acetaminophen (Tylenol) 650 mg PO Q4 hours PRN during rituximab infusion PRN fever
- ✔ Diphenhydramine (Benadryl) 25 mg IV Q4 hours PRN during rituximab infusion PRN severe dyspnea/bronchospasms
- ✔ Hydrocortisone (SoluCortef) 100mg IV once PRN severe dyspnea/bronchospasms
- ✔ Epinephrine 0.3mg IM once PRN emergent dyspnea/bronchospasms/reaction

Treatment Regimen:
1. Rituximab (Rituxan) (375 mg/m^2) = ________ mg = ________ mg (rounded to nearest 100 mg) IVPB
   (all solutions are 2 mg/ml final Rituximab concentration)

   Repeat above dose (frequency):

   **First Infusion:** Begin infusion at 50 mg/hr (25 ml/hr) for 1st 30 minutes. May increase rate by 50 mg/hr (25 ml/hr) every 30 minutes to a maximum of 400 mg/hr (200 ml/hr) provided no reaction occurs.

   **If reaction occurs,** stop infusion, follow reaction management protocol (page 2) and notify physician. Once symptoms have resolved and approved by physician, may restart infusion at 1/2 the previous rate and increase as described above.

   **Second and subsequent infusions:** (see Rapid infusion criteria, page 2)

   □ Rapid infusion criteria not met. Use standard infusion rate.
   □ Rapid infusion criteria met IF no reaction greater than Grade 2 with any previous dose.

   **Standard Rate:** Begin infusion at 100mg/hr (50 ml/hr) for first 30 minutes. May increase rate by 100 mg/hr (50 ml/hr) every 30 minutes; to a maximum of 400 mg/hr (200 ml/hr) provided no reaction occurs.

   **If reaction occurs,** follow instructions above.

   **Rapid Rate:** 20% of dose, infused over 30 minutes. Remaining 80% of dose, infused over 60 minutes. Total infusion time = 90 minutes. **If reaction occurs,** follow instructions above.
RITUXIMAB REACTION MANAGEMENT PROTOCOL
(Reactions generally occur within 30 minutes to 2 hours of beginning first infusion.)
ALL adverse events should be documented.

Have epinephrine (1 mg/ml) IM, diphenhydramine (Benadryl) 50 mg IV and hydrocortisone (SoluCortef) 100mg IV available for reaction management.

Common reactions: fever, chills, rigors
Interrupt infusion if appropriate. Treat symptomatically per PRN medications (see page 1). Once stable, restart IV at one-half previous infusion rate and proceed as ordered.

Serious Reactions: hypotension, angioedema, bronchospasms, dyspnea
Interrupt infusion, notify physician and treat symptoms as required.

Severe dyspnea/bronchospasms, administer diphenhydramine (Benadryl) 25 mg IV and hydrocortisone (SoluCortef) 100mg IV; in emergent situation give epinephrine 0.3 mg/0.3 ml IM

Systolic blood pressure of less than or equal to 80 mmHg, infuse 0.9% sodium chloride at 250 ml/hr, check blood pressure at least every 10 minutes until normal.

Once stable and approved by physician, restart rituximab infusion at 25 mg/hr increasing as tolerated in 10 mg/hr increments every 15 minutes for one hour, then increase in 50 mg/hr increments every 30 minutes to a maximum of 400 mg/hr.

Grade 3 reaction - symptomatic bronchospasm with or without urticaria; parenteral medication(s) indicated; allergy-related edema/angioedema; hypotension

Grade 4 reaction - anaphylaxis

RAPID INFUSION RITUXIMAB
All treatment naïve patients will complete the first rituximab infusion at defined rate (see page 1), and if tolerated and meets and maintains ALL of the below criteria, rapid infusion can be initiated with second and all subsequent infusions upon physician approval.

### MUST MEET ALL THE FOLLOWING CRITERIA

<table>
<thead>
<tr>
<th>Patient:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Is greater than or equal to 18 years of age</td>
<td>Does not have active opportunistic infection</td>
</tr>
<tr>
<td>Is not pregnant or lactating</td>
<td>Is able to tolerate rapid infusion rate (i.e., no pleural effusion, ascites, CHF)</td>
</tr>
<tr>
<td>Does not have contraindication to rituximab</td>
<td>Dose will be less than or equal to 375 mg/m² or total dose less than 1000 mg</td>
</tr>
<tr>
<td>Has not had a Grade 3 or 4 reaction to a previous rituximab infusion</td>
<td>Does not have lymphocytosis (greater than 5K/mL)</td>
</tr>
<tr>
<td>Last rituximab dose less than 6 months ago</td>
<td>Does not have CNS lymphoma</td>
</tr>
<tr>
<td>Does not have a high tumor burden or bulky disease (LDH is less than 1500 and/or lesions less than 10 cm)</td>
<td></td>
</tr>
</tbody>
</table>
Date:____________________________ Rituximab Dose:________________mg

Dose initiated at (time):_________  ☐ First Dose  ☐ Subsequent Dose
Dose completed at (time):_________  Physician:____________________________

☐ Patient tolerated treatment well

☐ Patient experienced the following adverse events

**Fever/chills:**  Tmax________  Duration________
Treatment:________________________________________________________________
Response:________________________________________________________________
(Grade 3: greater than 40.0° C for less than or equal to 24 hr; Grade 4: greater than 40.0° C for greater than 24 hours).

**Chills / Rigors:**  Duration:________________________
Treatment:________________________________________________________________
Response:________________________________________________________________
(Grade 3: severe or prolonged, not responsive to narcotics)

**Blood Pressure** (baseline) ________ mmHg
Did SBP drop below 80 mmHg   yes / no
Treatment:________________________________________________________________
Response:________________________________________________________________
(Hypotension Grade 3: sustained greater than or equal to 24 hrs, therapy resolves; Grade 4: shock)

**Bronchospasms / Dyspnea:**
Description:________________________________________________
Treatment:________________________________________________________________
Response:________________________________________________________________
(Bronchospasm Grade 3: Symptomatic, interfering with function; Grade 4: Life-threatening)
(Dyspnea Grade 3: dyspnea with ADL; Grade 4: dyspnea at rest - intubation/ventilator indicated)

**Hypersensitivity Reaction:**
Description:________________________________________________
Grade 1: transient flushing or rash; drug fever (less than 38° C)
Grade 2: rash; flushing; urticaria; dyspnea; drug fever (greater than or equal to 38° C)
Grade 3: symptomatic bronchospasm, with or without urticaria; parenteral medication(s) indicated; allergy-related edema/angioedema; hypotension
Grade 4: anaphylaxis

______________________________________________________________________
RN Signature

__________________________  ____________
Date                 Time

Patient ID Label  Rituximab (Rituxan) Administration
Nursing Assessment