# **LUPUS NEPHRITIS PRESCRIPTION AUDIT DATA COLLECTION PROFORMA**

## **PRESCRIPTION DETAILS**

* **Date of Prescription**: /20\_\_\_
* **Patient ID / Registration No**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* **Age**: \_\_\_\_\_ years **Weight**: \_\_\_\_\_ kg Gender: M/F
* **Lupus Nephritis Class** (if mentioned): Class I / II / III / IV / V / Not mentioned

## **SECTION A: PRESCRIPTION QUALITY CHECK**

| **Parameter** | **YES** | **NO** | **Comments** |
| --- | --- | --- | --- |
| **1. Date of consultation written** | ☐ | ☐ |  |
| **2. Patient age documented** | ☐ | ☐ |  |
| **3. Patient weight recorded** | ☐ | ☐ |  |
| **4. Diagnosis mentioned** | ☐ | ☐ |  |
| **5. All drug names are written** | ☐ | ☐ |  |
| **6. All drug strengths mentioned** | ☐ | ☐ |  |
| **7. All drug frequencies are written** | ☐ | ☐ |  |
| **8. Duration of treatment specified** | ☐ | ☐ |  |
| **9. Next visit date mentioned** | ☐ | ☐ |  |
| **10. Prescription signed by doctor** | ☐ | ☐ |  |

## **SECTION B: DRUG DOSING ASSESSMENT**

### **B1. IMMUNOSUPPRESSIVE DRUGS (mandatory-single or in combination as per standard treatment guidelines)**

**PREDNISOLONE**

* **Prescribed**: Yes ☐ No ☐
* **Dose prescribed**: \_\_\_\_\_\_\_ mg/day
* **Check dosing**:
  + Initial dose 0.5-1 mg/kg/day (max 60mg): Correct ☐ Incorrect ☐
  + Weight-based calculation: \_\_\_\_\_ mg/kg/day
  + For patients on maintenance IS, the dose will be reduced to 5mg per day.

**MYCOPHENOLATE MOFETIL (MMF)/MYCOPHENOLIC ACID**

* **Prescribed**: Yes ☐ No ☐
* **Dose prescribed**: \_\_\_\_\_\_\_ mg/day
* **Check dosing**:
  + Target dose 2-3g/day MMF OR 1.44g/day MPA for induction therapy for 6 months, followed by 1.5-2g per day for maintenance therapy: Correct ☐ Incorrect ☐
  + Dose may be reduced because of side effects or patient-specific reasons, and whether documented: yes /no

**AZATHIOPRINE**

* **Prescribed**: Yes ☐ No ☐
* **Dose prescribed**: \_\_\_\_\_\_\_ mg/day
* **Check dosing**:
  + Target 1.5-2.5 mg/kg/day: Correct ☐ Incorrect ☐
  + Weight-based calculation: \_\_\_\_\_ mg/kg/day

**TACROLIMUS/CYCLOSPORINE**

* **Prescribed**: Yes ☐ No ☐
* **Dose prescribed**: \_\_\_\_\_\_\_ mg/day
* **Target levels mentioned**: Yes ☐ No ☐

**CYCLOPHOSPHAMIDE**

* **Prescribed**: Yes ☐ No ☐ (IV/Oral)
* **Dose prescribed**: \_\_\_\_\_\_\_ mg/m² (if IV) OR \_\_\_\_\_ mg/day (if oral).
* **Total cumulative dose received**

Given as induction therapy, it may be mentioned in the patient's clinical details, but not in the prescription generated.

### **B2. SUPPORTIVE MEDICATIONS**

**HYDROXYCHLOROQUINE (Mandatory, unless contraindicated and if reason mentioned)**

* **Prescribed**: Yes ☐ No ☐
* **Dose prescribed**: \_\_\_\_\_\_\_ mg/day
* **Check dosing**:
  + Target ≤5 mg/kg/day (max 400mg): Correct ☐ Incorrect ☐
  + Weight-based calculation: \_\_\_\_\_ mg/kg/day

**ACE INHIBITORS/ARBs** (for proteinuria/ hypertension) (optional drug but preferred)

* **Prescribed**: Yes ☐ No ☐
* **Drug name**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* **Dose**: \_\_\_\_\_\_\_ mg/day

**CALCIUM + VITAMIN D** (for steroid-induced osteoporosis) (mandatory with steroids)

* **Prescribed**: Yes ☐ No ☐
* **Calcium dose**: \_\_\_\_\_\_\_ mg/day
* **Vitamin D dose**: \_\_\_\_\_\_\_ IU/day

**H2 Blocker /Proton pump inhibitors** (optional, usually given with high-dose steroids)

* **Prescribed**: Yes ☐ No ☐
* Dose and duration

**STATINS**

Atorvastatin: yes/no

Dose 10-40mg /day.

**ANY OTHER DRUGS PRESCRIBED**: Yes/No

Enumerate them with indication:

If Indication mentioned: yes /no

Dose and duration mentioned:

**OTHER DRUGS PRESCRIBED IN LUPUS CLINIC**

Diuretics like loop diuretics, thiazide diuretics, and aldosterone antagonists, beta-blockers, Calcium channel blockers, centrally acting alpha agonists, Anticoagulation for nephrotic state, including warfarin or directly acting oral anticoagulants.

Advice on contraception with embryotoxic drugs like Cyclophosphamide, MMF, ACEi/ARBs has to be given, and should be documented in women of child bearing age.

Prophylaxis against Pneumocystis jiroveci (Trimethoprim/sulfamethoxazole) is not given routinely along with steroids in the Lupus clinic, as the prevalence in the area is low.

**SECTION C: DRUG INTERACTION CHECK**

### **C1. CONTRAINDICATED COMBINATIONS (Mark if BOTH drugs are prescribed together)**

| **Combination** | **Present** | **Action Required** |
| --- | --- | --- |
| **MMF + Azathioprine** (both immunosuppressants) | ☐ | Flag for review |
| **ACE-I + ARB** (both RAAS blockers) | ☐ | Flag for review |
|  |  |  |

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### **C2. DRUGS REQUIRING DOSE ADJUSTMENT WITH KIDNEY DISEASE**

| **Drug** | **Prescribed** | **eGFR/Creatinine Available** | **Dose Adjustment Needed** |
| --- | --- | --- | --- |
| **MMF** | ☐ | Yes ☐ No ☐ | Consider if eGFR <60 |
| **ACE-I/ARB** | ☐ | Yes ☐ No ☐ | Monitor if eGFR <45 |
|  |  |  |  |

### **Any other drug interactions or inappropriate dosages**

Enumerate

### **D2. DRUG-SPECIFIC MONITORING**

| **Drug Prescribed** | **Required Monitoring** | **Ordered** |
| --- | --- | --- |
| **MMF** | CBC, LFT | ☐ |
| **Azathioprine** | CBC, LFT | ☐ |
| **Tacrolimus** | Drug levels, creatinine | ☐ |
| **Hydroxychloroquine** | Annual eye exam (if mentioned) | ☐ |

## **SECTION E: WHO PRESCRIBING INDICATORS**

**E1. PRESCRIPTION PATTERN**

* **Total number of drugs prescribed**: \_\_\_\_\_\_\_
* **Number of drugs by generic name**: \_\_\_\_\_\_\_
* **Percentage generic prescribing**: \_\_\_\_\_\_\_ %

**E2. RATIONAL PRESCRIBING**

* **Antibiotics prescribed**: Yes ☐ No ☐
  + If yes, indication mentioned: ☐
* **Injections prescribed**: Yes ☐ No ☐
* **Unnecessary vitamins/tonics**: Yes ☐ No ☐

## **SECTION F: COMPLIANCE WITH GUIDELINES**

### **F1. KDIGO 2024 COMPLIANCE**

**For Class III/IV Lupus Nephritis:**

* **First-line therapy used**: MMF ☐ Cyclophosphamide ☐ Other ☐
* **Corticosteroid prescribed**: Yes ☐ No ☐
* **Hydroxychloroquine included**: Yes ☐ No ☐

**For Class V Lupus Nephritis:**

* **Conservative management**: Yes ☐ No ☐
* **Immunosuppression**: Yes ☐ No ☐

### **F2. TREATMENT RESPONSE ASSESSMENT**

* **Previous response documented**: Yes ☐ No ☐
* **Treatment modification considered**: Yes ☐ No ☐

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## **SECTION G: RED FLAGS ⚠️**

**IMMEDIATE REVIEW REQUIRED IF ANY OF THE FOLLOWING:**

| **Red Flag** | **Present** | **Action** |
| --- | --- | --- |
| **Prednisolone >1.5 mg/kg/day** | ☐ | Immediate physician review |
| **No immunosuppression in Class III/IV** | ☐ | Check if intentional |
| **Drug interactions flagged** | ☐ | Physician consultation |
| **Missing essential monitoring** | ☐ | Add required tests |
| **Dose >150% of recommended** | ☐ | Verify calculation |

## **SUMMARY SCORE**

* **Overall Prescription Quality**: \_\_\_/10 (Section A)
* **Dosing Accuracy**: \_\_\_/5 (appropriate doses)
* **Drug Interactions Identified**: \_\_\_\_\_ (number)
* **KDIGO Compliance**: Yes ☐ Partial ☐ No ☐

**AUDIT COMPLETED BY**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **DATE**: ***/***/20\_\_\_

**RECOMMENDATIONS FOR PRESCRIBER**: