



# PHARMACY KEY



A PUBLICATION OF THE PHARMACY AND THERAPEUTICS COMMITTEE

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## “DO NOT USE” ABBREVIATIONS UPDATE

The “Do Not Use” Abbreviations policy is one of several initiatives The University of Kansas Hospital has recently implemented to improve patient safety. The policy applies to all handwritten, patient-specific communications by health care providers, not just medication orders. Identified by several national organizations including the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and the Institute for Safe Medication Practices (ISMP), the prohibited abbreviations have been chosen due to empirical evidence of dangerous misinterpretation leading to patient harm. Our institution must have **less than a 10%** occurrence of these abbreviations to be deemed JCAHO compliant. Recent audits have shown a large improvement in decreasing the use of the abbreviations, especially with QD. However despite our progress, the abbreviations cc, R, and L are currently still used more than 50% of the time. As of July 1, **all** orders with “do not use” abbreviations are required to be clarified in the patient’s medical record.

Use	DO NOT USE	Reason	Current Compliance
Write <b>Daily</b> or <b>Every Day</b> or <b>Qday</b>	<b>QD</b>	Can appear as QID or QOD	14%
<b>Every Other Day</b>	<b>QOD</b>	Looks like QID or QD	33%
<b>Morphine Sulfate</b>	<b>MS</b> or <b>MSO4</b>	Can be mistaken for Magnesium	17%
<b>Magnesium Sulfate</b>	<b>MgSO4</b>	Can be mistaken for Morphine	0%
<b>Unit</b> or <b>Units</b>	<b>U</b> or <b>u</b>	Looks like a number leading to overdose	14%
<b>International Unit</b> or <b>Unit</b>	<b>IU</b>	May look like "IV" or "10"	0%
<b>Avoid trailing zero (1 mg)</b>	<b>Trailing zero (1.0 mg)</b>	10-fold overdose may occur if decimal point is not noticed	0%
<b>Use a leading zero (0.1 mg)</b>	<b>Lack of leading zero (.1 mg)</b>	10-fold overdose may occur if decimal point is not noticed	23%
<b>mL</b> or <b>mL/Hr</b>	<b>cc</b>	Can appear as units or additional numbers	51%
<b>Sliding Scale (Insulin)</b>	<b>ss</b> or <b>SS</b>	Can appear as other numbers or symbols	50%
<b>mcg</b> or <b>microgram</b>	<b>µg</b>	Overdose results if mistaken for "mg"	8%
<b>RIGHT</b>	<b>R</b>	Can be confused with "L"	94%
<b>LEFT</b> or <b>LITER</b>	<b>L</b>	Can appear to be a number	87%



## FORMULARY ADDITIONS

### Olanzapine for Injection (Zyprexa? IntraMuscular) 10 mg vial, powder for reconstitution

Olanzapine for injection is indicated for the treatment of agitation associated with schizophrenia and bipolar I mania. Its exact mechanism of action is unknown; however, a proposed mechanism in the treatment of schizophrenia is the antagonism of dopamine and serotonin type 2.

Olanzapine for injection results in rapid absorption with peak plasma concentrations reached within 15 to 45 minutes of administration. A study in healthy volunteers found maximum plasma concentrations achieved with 5 mg of olanzapine for injection to be approximately 5 times higher than those achieved with 5 mg of the oral dosage form of olanzapine. The bioavailability, half-life, and metabolic profile of olanzapine for injection is comparable to olanzapine, and it displays linear pharmacokinetics over the clinical dosing range. The primary metabolic pathways include direct glucuronidation and cytochrome P450-mediated oxidation.

#### **DRUG AND FOOD INTERACTIONS**

The manufacturer's prescribing information lists no food/drug interactions.

#### **DOSAGE AND ADMINISTRATION**

The recommended dose of olanzapine for injection in agitated patients with schizophrenia or bipolar mania is 10 mg. Lower doses of 5 or 7.5 mg may be considered in special populations. If agitation warranting additional intramuscular doses persists following the initial dose, subsequent doses up to 10 mg may be given.

A dose of 5 mg per injection should be considered in elderly patients, and a lower dose of 2.5 mg may be considered in patients who are otherwise debilitated, predisposed to hypotensive reactions, or may be more pharmacodynamically sensitive to olanzapine.

Olanzapine for injection is intended only for intramuscular use and should not be administered intravenously or subcutaneously. Inject slowly, deep into the muscle mass. The product should be inspected visually for particulate matter and discolorations prior to administration.

To prepare the product for injection, dissolve the contents of the vial using 2.1 mL of Sterile Water for Injection to provide a solution containing approximately 5 mg/mL of olanzapine. The drug should be used immediately (within 1 hour) of reconstitution.

#### **GUIDELINES FOR USE**

##### *Criteria*

Patients must meet one of the following criteria in order to be eligible to receive olanzapine for injection.

1. History of dystonia or other severe extrapyramidal side effects (i.e., stiffness, muscle rigidity, akathisia, tardive dyskinesias) due to a typical antipsychotic
2. Neuroleptic naïve patients
3. Patient currently receiving the oral formulation of olanzapine

##### *Dosing*

Adults: 10 mg IM every 2 to 4 hours, not to exceed 30 mg per day

Geriatric population: 2.5 mg IM every 2 to 4 hours

**Formulary Additions and Deletions (January 1, 2004 - Present)**

Generic Name	Trade Name	Therapeutic Class	Action	Date	Comments
BCNU Wafers	Gladel	Chemotherapeutic	Added	2/26/04	
Brompheniramine	N/A	Antihistamine	Deleted	3/19/04	
Brompheniramine/ Phenylpropanolamine	N/A	Antihistamine/ Decongestant	Deleted	3/19/04	
<b>Darbepoetin Alfa</b>	<b>Aranesp</b>	<b>Hematopoietic Agent</b>	<b>Deleted</b>	<b>06/24/04</b>	
<b>DTaP, Hep B (Recombinant), and IPV Combined</b>	<b>Pediarix</b>	<b>Vaccine</b>	<b>Added</b>	<b>5/27/04</b>	
<b>Doxorubicin HCl Liposomal</b>	<b>Doxil</b>	<b>Chemotherapeutic</b>	<b>Added</b>	<b>5/27/04</b>	
Guaifenesin/ Codeine	N/A	Expectorant	Added	1/22/04	
Halothane	N/A	Inhalational Anesthetic	Deleted	3/25/04	
Lidocaine 5%	Lidoderm	Local Anesthetic	Added	8/28/03	
Mivacurium	Mivacron	Neuromuscular Blocker	Added	2/26/04	
Morphine Extended Release	Avinza	Narcotic Analgesic	Added	4/29/04	See guidelines for use
<b>Moxifloxacin</b>	<b>Avelox</b>	<b>Antibiotic</b>	<b>Deleted</b>	<b>6/24/04</b>	
Nateglinide	Starlix	Antidiabetic	Added	4/29/04	
<b>Olanzapine for Injection</b>	<b>Zyprexa IntraMuscular</b>	<b>Antipsychotic</b>	<b>Added</b>	<b>6/24/04</b>	<b>See guidelines for use</b>
Oseltamivir	Tamiflu	Antiviral	Added	3/25/04	
Risperidone Long-Acting	Risperdal Consta	Antipsychotic	Added	2/26/04	See guidelines for use
Zonisamide	Zonegran	Antiepileptic	Added	2/26/04	