

# Using the Liquid Dose Calculator

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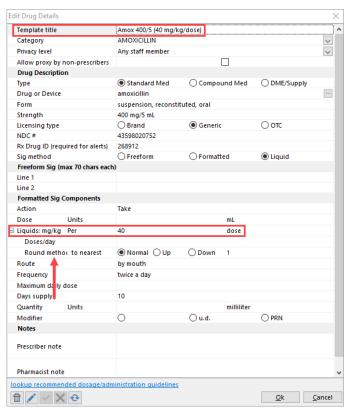
Version 21.3

#### Overview

Most liquid medications that pediatricians write are single medications (as opposed to combination medications). Therefore, as in the case of amoxicillin or cefdinir, it's straightforward how to use the Liquid Dose Calculator in OP either to create a medication while writing a medication or to save a favorite with a specific mg/kg/dose or day.

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**Note**: If you have multiple dosages of the same medication saved as favorites, you can include the mg/kg in the name of the medication (Examples: *Amox 40 mg/kg/dose* and *Amox 20 mg/kg/dose*) for ease of identifying each favorite when writing a prescription.



You can set your favorites to save rounding rules based on what makes sense for a particular medication. For example, rounding to 1 mL makes sense for the amoxicillin example above but not for ranitidine for infants, which you may want to round to 0.1 mL.

Using the Liquid Dose Calculator is not as straightforward for several other types of liquid medications. These include:

- 1. Combination liquid medications.
- 2. Liquid medications that are not weight dependent.
- 3. Liquid medications that depend on a weight range.
- 4. Liquid medications that have step-down dosing.

The remainder of this article discusses each of these types of liquid medications and tips and Best Practices for using the Liquid Dose Calculator for each type.





#### **Combination Liquid Medications**

While Providers are taught during their medical training to think about medications in a certain format (for example, Providers think of bactrim or septra as TMP/SMZ and augmentin as amoxicillin/clavulanate), the medication Master List in OP comes from a third-party medication database that creates the name descriptor. The descriptors are often (but not always) based upon the component with the highest amount in the medication. Therefore, while augmentin appears as "amoxicillin-pot clavulanate," bactrim appears as "sulfamethoxazole-trimethoprim." Being aware of how the name descriptors work may simplify your search for all combination medications on the Master List.

It is even more important that you understand that the Liquid Dose Calculator in OP always calculates on the medication that is *listed first* in the name.

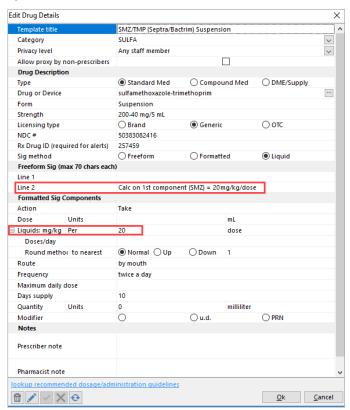


**Medical Implication**: If the prescriber does not fully understand how the Liquid Dose Calculator in OP calculates combination liquid medications, it may lead to medication errors.

For example, while we may medically "think" that we should calculate TMP/SMZ based on the trimethoprim component (8 mg/kg/day or 4 mg/kg/dose), the Liquid Dose Calculator does not calculate according to this approach. The calculator computes on the sulfamethoxazole component since that is the higher amount and is listed first in the name.

You can still create favorites that support prescribing recommendations, because liquid SMZ/TMP [sic] is available in only one dosing and that is always sulfamethoxazole 200 mg/trimethoprim 40 mg per 5 mL. Since the composition is constant, you can enter in the Liquid Dose Calculator: 20 mg/kg/dose (or 40 mg/kg/day), which is the commonly accepted equivalent to the trimethoprim.

Use the SigLine2 in the Edit Drug Details window to add a reminder to a favorite medication:

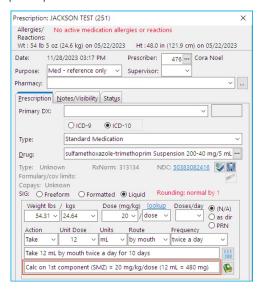


OP includes this reminder in the Prescription Writer window when Providers write a prescription for that medication. Providers



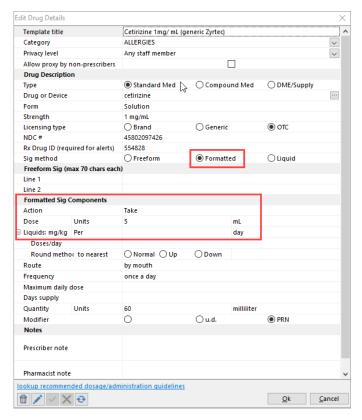


can delete this text prior to sending the prescription.



### Liquid Medications That Are Not Weight Dependent

Some liquid medications are not based on an exact weight requirement. For example, dosing for cetirizine is usually 5 mL for most children who use the liquid preparation. In this scenario, you do not want the Liquid Dose Calculator to adjust the dosing for small incremental changes in weight. If you change your favorite from liquid to formatted, it won't use the calculator when applied to a patient.



#### Liquid Medications That Depend On A Weight Range

Some medications (such as Tamiflu) are a fixed dosing for a specific weight range and/or age (and may, as in the case of





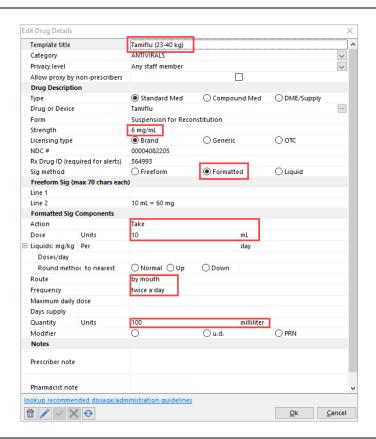
Tamiflu, have different instructions for different indications). The best way to ensure that your favorites reflect a specific dosing is to create favorite medications that include weight ranges in the names themselves.

The following example illustrates how weight ranges can be incorporated in the names as well as how some names include "ppx" (used for flu prophylaxis) to differentiate that type of medication from a flu treatment.

Tamiflu (15 kg - 23 kg)	oseltamivir Suspension, Reconstituted, Oral 6 mg/mL		7.5 mL= 45 mg	··· 69238127306
Tamiflu (23-40 kg)	osettamivir Suspension, Reconstituted, Oral 6 mg/mL		10 mL = 60 mg	··· 69238127306
Tamiflu (<15 kg)	osettamivir Suspension, Reconstituted, Oral 6 mg/mL		5 mL = 30 mg	··· 69238127306
Tamiflu (>40kg)	osettamivir Suspension, Reconstituted, Oral 6 mg/mL		12.5 mL = 75 mg	··· 69238127306
Tamiflu caps 75 mg treat (generic)	osettamivir capsule 75 mg			··· 69238126601
Tamiflu ppx 1+ yrs >15 kg <23 kg	osettamivir Suspension, Reconstituted, Oral 6 mg/mL	Take 7.5 mL by mouth once a	(total 45 mg once daily for pro	69238127306
Tamiflu ppx 1+ yrs >23kg < 40 kg	osettamivir Suspension, Reconstituted, Oral 6 mg/mL	Take 10 mL by mouth once a c	(total 60 mg once daily for pro	69238127306
Tamiflu ppx 1+yrs >40 kg	osettamivir Suspension, Reconstituted, Oral 6 mg/mL	Take 12.5 mL by mouth once a	(total 75 mg once daily for pro	··· 69238127306
Tamiflu ppx 1+yrs, <15 kg	osettamivir Suspension, Reconstituted, Oral 6 mg/mL	Take 5 mL by mouth once a da	(30 mg once daily for prophyla	··· 69238127306
Tamiflu ppx 3-8 mos 3/kg/day	osettamivir Suspension, Reconstituted, Oral 6 mg/mL			··· 69238127306
Tamiflu ppx 9-23 mos 3.5 mg/kg/day	osettamivir Suspension, Reconstituted, Oral 6 mg/mL			··· 69238127306
Tamiflu ppx adult caps (generic)	osettamivir capsule 75 mg	Take 1 cap by mouth once a d		68180067711

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**Note**: When writing the instructions (sig) for these medications, be sure to change each favorite to Formatted so that OP doesn't recalculate the dosing when applied to patients.



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**Note**: In your Favorites, you can name a medication whatever works best for your Practice and the way that your Providers think about the various medications. This makes it easier for Providers to find each medication.

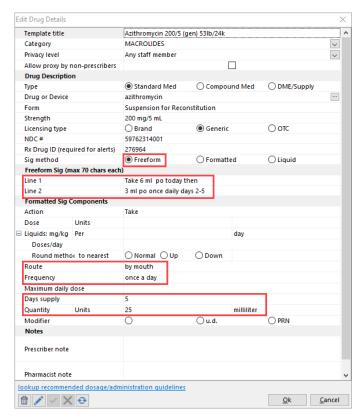
#### Liquid Medications That Have Step-Down Dosing

Some medications, such as azithromycin, have a different dosing for the first day and the remainder of the course of treatment. In these cases, it is a Best Practice to set these liquid medications as Freeform instead of Liquid when you save them to your





favorites and to use weight dosing in the name of each saved favorite. The following examples illustrate both of these Best Practices:



Azithromycin (Zithromax) tabs	azithromycin tablet 250 mg	Take 2 tablets by mouth today	days 2-5	
Azithromycin 100/5 (gen)22 lb/10 kg	azithromycin Suspension, Reconstituted, Oral 100 mg/5 ml	take 5 mL po today then	2.5 mL po once daily days 2-5	
Azithromycin 200/5 (gen) 33lb/15k	azithromycin Suspension for Reconstitution 200 mg/5 mL	Take 4 ml po today then	2 ml po once daily days 2-5	
Azithromycin 200/5 (gen) 53lb/24k	azithromycin Suspension for Reconstitution 200 mg/5 mL	Take 6 ml po today then	3 ml po once daily days 2-5	
Azithromycin 200/5 (gen) 60lb/27k	azithromycin Suspension for Reconstitution 200 mg/5 mL	Take 7 ml po today then	3.5 ml po once daily days 2-5	
Azithromycin 200/5 (gen) 70lb/32k	azithromycin Suspension for Reconstitution 200 mg/5 mL	Take 8 ml po today then	4 ml po once daily days 2-5	
Azithromycin 200/5 (gen) 79lb/36k	azithromycin Suspension for Reconstitution 200 mg/5 mL	Take 9 ml po today then	4.5 ml po once daily days 2-5	
Azithromycin 200/5 (gen) 88lb/40kg+	azithromycin Suspension for Reconstitution 200 mg/5 mL	Take 10 ml po today then	5 ml po once daily days 2-5	
Azithromycin 200mg/5 for strep (12/	azithromycin Suspension for Reconstitution 200 mg/5 mL			
Azithromycin 250 mg tabs for Strep	azithromycin tablet 250 mg			
Azythromycin 200/5 (gen) 44 lb/20kg	azithromycin Suspension for Reconstitution 200 mg/5 mL	Take 5 ml po today then	2.5 ml po once daily days 2-5	

Version 21.2

#### Overview

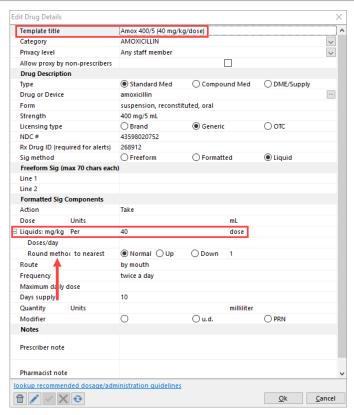
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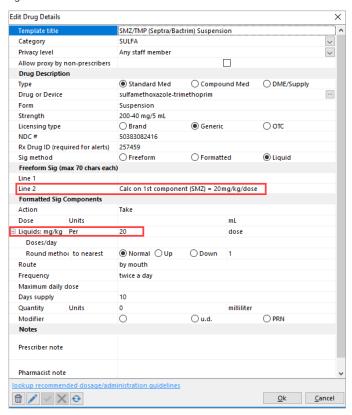




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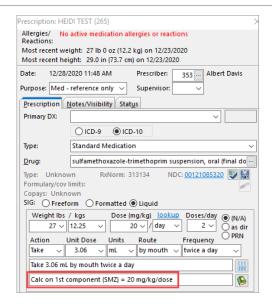
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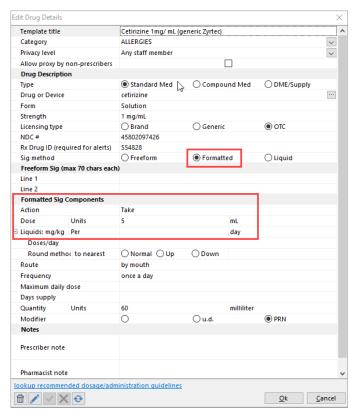






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Some medications (such as Tamiflu) are a fixed dosing for a specific weight range and/or age (and may, as in the case of Tamiflu, have different instructions for different indications). The best way to ensure that your favorites reflect a specific dosing





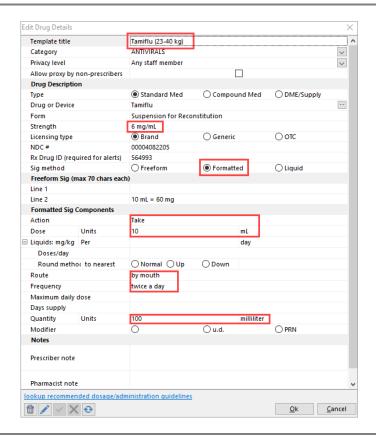
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Tamiflu caps 75 mg treat (generic)	osettamivir capsule 75 mg			69238126601
Tamiflu ppx 1+ yrs >15 kg <23 kg	osettamivir Suspension, Reconstituted, Oral 6 mg/mL	Take 7.5 mL by mouth once a	(total 45 mg once daily for pro	69238127306
Tamiflu ppx 1+ yrs >23kg < 40 kg	osettamivir Suspension, Reconstituted, Oral 6 mg/mL	Take 10 mL by mouth once a c	(total 60 mg once daily for pro	69238127306
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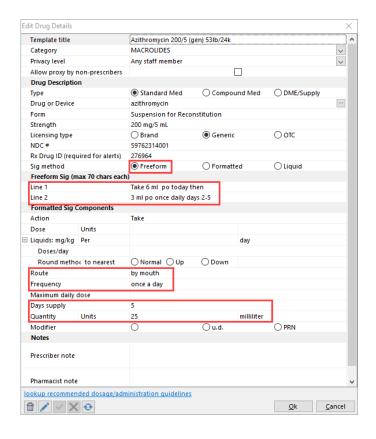
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#### Practices:



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Azithromycin 100/5 (gen)22 lb/10 kg	azithromycin Suspension, Reconstituted, Oral 100 mg/5 ml	take 5 mL po today then	2.5 mL po once daily days 2-5	
Azithromycin 200/5 (gen) 33lb/15k	azithromycin Suspension for Reconstitution 200 mg/5 mL	Take 4 ml potoday then	2 ml po once daily days 2-5	
Azithromycin 200/5 (gen) 53lb/24k	azithromycin Suspension for Reconstitution 200 mg/5 mL	Take 6 ml potoday then	3 ml po once daily days 2-5	
Azithromycin 200/5 (gen) 60lb/27k	azithromycin Suspension for Reconstitution 200 mg/5 mL	Take 7 ml potoday then	3.5 ml po once daily days 2-5	
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Azithromycin 250 mg tabs for Strep	azithromycin tablet 250 mg			
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