Mosby's

EMERGENCY DRUG INDEX

by Mick J. Sanders

User Guide

Mosby
Lifeline

Copyright

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Introduction

Congratulations on selecting **Mosby's Emergency Drug Index** as your portable, electronic drug reference for the prehospital environment.

This manual explains how to install and use Mosby's Emergency Drug Index with all Newton Personal Digital Assistant (PDA) devices that utilize at least version 2.0 of the Newton OS.

About Mosby's Emergency Drug Index

As a Newton digital book, Mosby's Emergency Drug Index provides the following advantages as an electronic reference in the field:

- A highly portable, lightweight tool that provides instant access to information about the commonly prescribed medications in prehospital care.

- A built in powerful search engine that can find all occurrences in the book of words or phrases of interest.

- A built in drug dosage calculator that can be used to verify your own calculations.

- A built in infusion rate calculator that can be used to verify your own calculations.

- An interactive table of contents that allows you to jump to the item of interest with just a tap of the pen.

- A capability to annotate pages of the book with digital ink and then hide the annotations. Great for self study.

- The ability to create your own electronic bookmarks that will enable you to immediately jump to important items with just the tap of a pen.

- A smart book that immediately opens up to the last page you were at.

What You Need to Know Before Using Mosby's Emergency Drug Index

Mosby's Emergency Drug Index is designed to operate as a standard digital book on the Newton platform. This manual assumes that you already have a basic understanding of Newton technology, the operation of your Newton device, how to load packages into your Newton from either your PC or MAC OS based desktop and that you are familiar with how to use Newton digital books. If this is not true, we strongly urge you to read the appropriate sections of the documentation that came with your Newton. This manual will not attempt to replicate all that prerequisite information.

Installing Mosby's Emergency Drug Index

This chapter explains how to install Mosby's Emergency Drug Index. All of the procedures and examples that appear in this manual assume that you have a working knowledge of your Newton.

Memory Requirements

Before you install Mosby's Emergency Drug Index onto your Newton, you must confirm that there is adequate free space available. Mosby's Emergency Drug Index requires about 500K bytes of storage.

System Requirements

Mosby's Emergency Drug Index requires a Newton device running at least level 2.0 of the Newton Operating System.

Installing the Digital Book

Install Mosby's Emergency Drug Index by connecting your Newton to either a Mac OS or IBM-compatible PC. Insert the floppy disk containing the digital book software into the computer. Use an appropriate Newton package installer (e.g. Newton Backup Utility) to install the package named EDI.pkg from the floppy disk into your Newton.

Registering Mosby's Emergency Drug Index

In order to use the digital book, you must register your copy with Digital Objectives. The following steps assume that you have previously installed Mosby's Emergency Drug Index.

1. Tap on the Mosby's Emergency Drug Index icon in the Extras Drawer.

The following slip is displayed after you open the Mosby's Emergency Drug Index book:

This book cannot be used until you register.
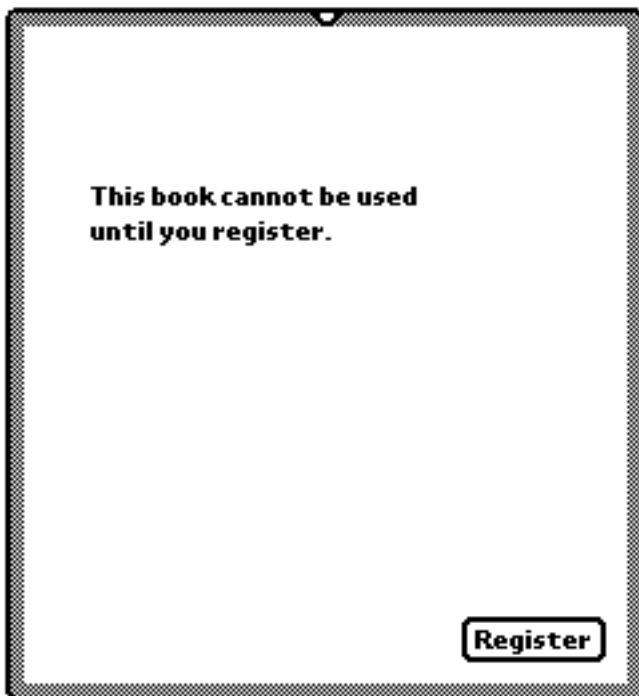
[Register]

2. Tap the [Register] button.

The following registration slip is displayed after you tap the button:

**Call the Digital Objectives offices
at (888) 436-4636
or (908) 302-9600
with the Magic Number below to
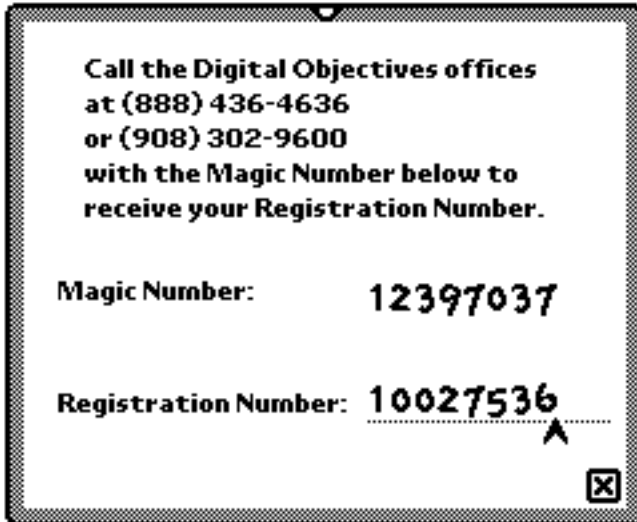receive your Registration Number.**

Magic Number: 12397037

Registration Number:

Note: The Magic Number displayed above is just an example. Your number will be different.

3. Contact Digital Objectives personnel and read them the Magic Number shown on your Newton. Digital Objectives personnel will record your number and provide you with the Registration Number you need to complete the registration process.

4. Enter the Registration Number in the field provided on the registration slip. You can either write the number or double tap the field to call up the numeric keypad and then tap in the number.

After entering your Registration Number the slip will look like following:

Note: The Registration Number displayed above is just an example. Your
number will be different.

5. Tap the close box ☒ to close the registration slip. This should complete the
registration process. If the registration number was valid then the following
message will be displayed:
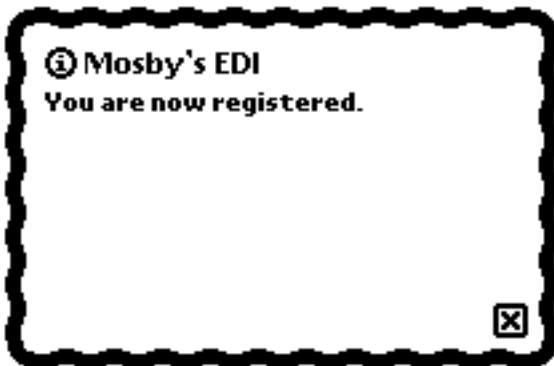
Mosby's Emergency Drug Index is now registered. You can begin your
exploration of its content and capabilities. Enjoy !!!

Using Mosby's Emergency Drug Index

Newton Digital Books all use a standard graphical user interface that enables the user to interact with the book. Mosby's Emergency Drug Index utilizes this standard interface for all the standard functions such as navigating through the book, performing searches and setting bookmarks among others. If you are not familiar with the standard interface for operating Newton Digital Books, please refer to the documentation that came with your Newton device. It is time well spent, since once you understand how to operate the standard interface for any single digital book then you have mastered that task for all digital books.

This chapter will explain how to use those capabilities of Mosby's Emergency Drug Index which are unique to this particuliar digital book. It is assumed that you are already familiar with the standard behavior of Newton Digital Books.

The Calculators

Mosby's Emergency Drug Index contains two calculators. One of the calculators computes drug dosages and the other computes infusion rates. There is also an interface between the two calculators so that a calculated drug dose can be automatically flowed to the infusion rate calculation. Each calculator can also be used independently of the other.

Each calculator exists as a separate page in the book. For ease of use, the calculators are on consecutive pages and they are also accessible from the interactive table of contents. Shown below is the book Contents slip with the Calculators section opened to reveal the two calculator items:

Contents
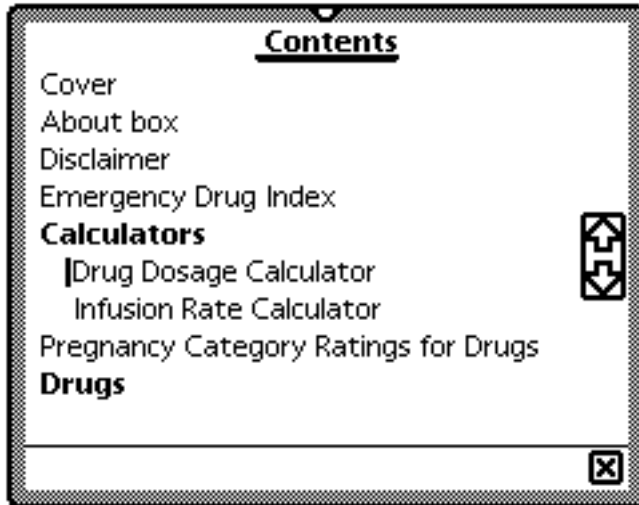
You may also find it convenient to set bookmarks on each of the calculator pages to facilitate quick access from other pages in the book.

The Drug Dosage Calculator

The Drug Dosage Calculator can be used in one of three ways. In its most simplistic application it can be used to merely convert a patient's weight from pounds to kilograms or vice versa. Its more advanced application is to compute the dose of a drug to be administered given the patient's weight and a dosage guideline expressed as some dose per each kilogram of the patient's weight. In its most advanced application it will not only compute the dose to be administered but will also calculate the volume to be adminstered given the dose on hand and its corresponding volume.

The calculator is essentially a form where you provide inputs into the appropriate fields and then tap a button to initiate the calculation.

When you first access the Drug Dosage calculator page it will look like the empty form below:

Mosby's Emergency Drug Index
Drug Dosage Calculator

Patient weight: _____ ◆ kg

Dosage guideline: _____ ◆ mg   per kg

Dose: ◆ mg

Dose on hand: _____ ◆ mg

Volume on hand: _____ ◆ ml

Volume: ◆ ml

[Clear]   [Calculate]

Names   Dates   Extras   Undo   Find   Assist

Patient Weight Conversion

The first field on the Drug Dosage Calculator can be used for simple weight conversions between pounds and kilograms or vice versa. To do this,

1. Set the unit picker for the weight of the patient to be the unit metric that will be associated with the patient's entered weight, e.g. If the patient weighs 170 pounds then set the picker to "lbs" .

unit picker

Patient weight: _____ ◆ kg √lbs
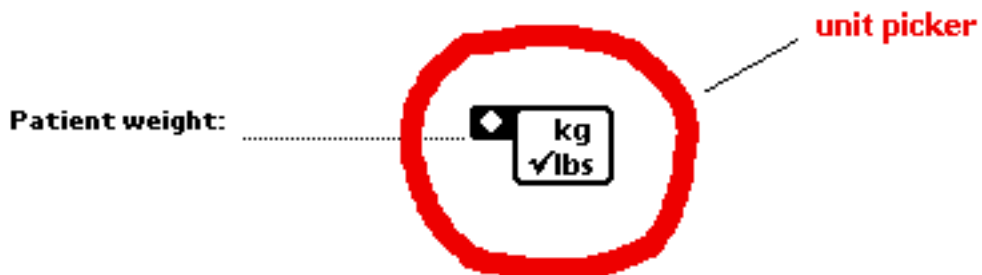
2. Enter the patient's weight.

Patient weight: 170 ♦ lbs

3. Change the unit picker for the weight of the patient to be the unit metric that you wish to convert the patient's weight to, e.g. "kg". As soon as you make your selection from the unit picker the patient's weight is converted to the new unit.

Patient weight: 77.1114... ♦ kg

Calculating the Dose to Administer

The Drug Dosage Calculator can be readily used to calculate a dose given the patient's weight and a dosage guideline. The top portion of the form is where you enter these values.

 To do this,

1. Enter the patient's weight.
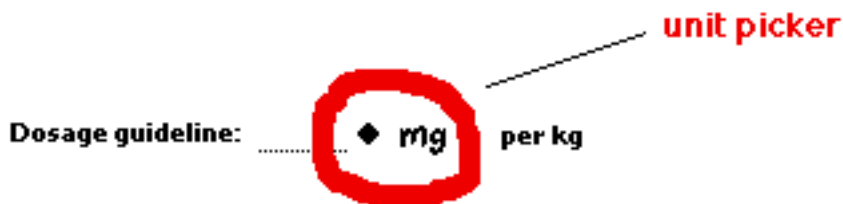

2. Enter the dosage guideline.

3. Tap the calculate button [Calculate]

The result will come back in the Dose box:

Dose: **37.5** ◆ mg

The Dosage Guideline Unit Picker

The picker associated with the dosage guideline allows you to control the unit metric for the entered value.

unit picker

Dosage guideline: .... ◆ mg per kg

If you tap the picker you will notice that the possible choices are divided into three categories: one for expressing weight in the metric system, one for expressing volume in the metric system and the third category for expressing two miscellaneous unit types.

Dosage guideline: .... ◆ er kg

kg
g
✓mg   weight
µg

L
ml   volume
µl

units   miscellaneous
mEq
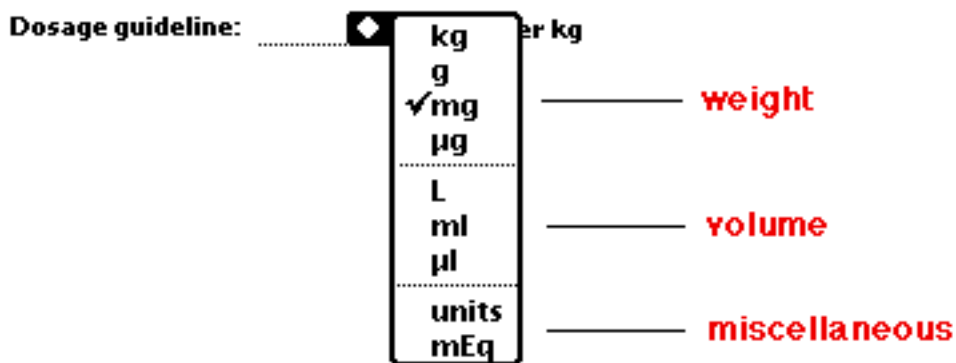
This picker is also intelligently linked with the picker for the dose. The unit picked for the dosage guideline automatically constrains the dose unit picker to values from the same category.

So if you choose a dosage guideline unit from the weight category then the dose picker will only show items from the weight category. If you choose a dosage guideline unit from the volume category then the dose picker will only show items from the volume category. Lastly, if you choose a dosage guideline unit from the miscellaneous category then the dose picker will only show the same unit.

Also, the unit picked for the dosage guideline automatically sets the unit shown for the dose. The assumption is that you will most likely want to see the computed dose expressed in the same units as the dosage guideline. Of course, you can override this behavior by simply resetting the units for the dose with its picker.

The other intelligent behavior built into the dosage guideline unit picker is that it knows that the displayed results would be wrong if you change the units for the guideline *after* performing a calculation. To prevent this from happening, it automatically clears any calculated results (i.e. the dose and/or volume fields) should you change the guideline units after performing a calculation.

The Dose Unit Picker

The picker associated with the dose allows you to control the unit metric for the calculated dose.

The choices displayed by the picker are determined by the category chosen in the unit picker for the dosage guideline. More information on this linkage between the two pickers can be found above in the section "The Dosage Guideline Unit Picker".

If you have already calculated a dose then the picker can be used to perform unit conversions of the result. To do this just pick the new unit and the dose will be converted to the new unit:

1. Tap the picker to reveal the picklist
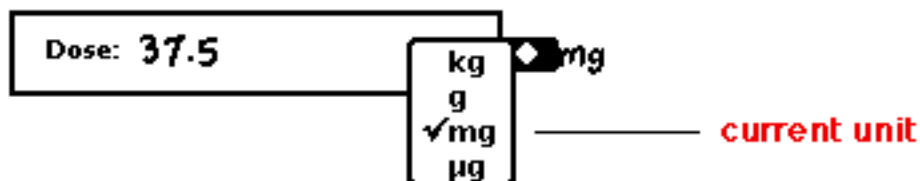
2. Pick the new unit
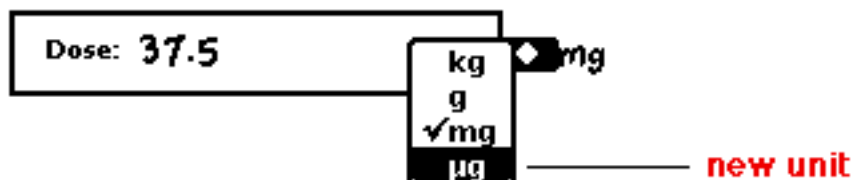
3. The previously calculated dose is converted to the new unit

```
┌────────────────────────────┐
│  Dose: 37,500              │  ◆ µg
└────────────────────────────┘
```

Calculating the Volume to Administer

The Drug Dosage Calculator can also be used to calculate the volume to administer. If the dose has previously been calculated then additional entry of the dose on hand and volume on hand is all that's required.

Suppose the dose has previously been calculated and the Drug Dosage Calculator currently looks like this:

```
┌──────────────────────────────────┐
│  Mosby's Emergency Drug Index     │
│     Drug Dosage Calculator        │
├──────────────────────────────────┤
│                                   │
│  Patient weight: 75        ◆ kg   │
│                                   │
│  Dosage guideline: 0.5  ◆ mg  per kg
│  ┌─────────────────────────┐      │
│  │ Dose: 37.5              │ ◆ mg │
│  └─────────────────────────┘      │
│                                   │
│  Dose on hand: ............ ◆ mg  │
│                                   │
│  Volume on hand: ......... ◆ ml   │
│  ┌─────────────────────────┐      │
│  │ Volume:                 │ ◆ ml │
│  └─────────────────────────┘      │
│   [ Clear ]   [ Calculate ]       │
│                            ⌐⌐⌐    │
│  🖐  📖  📦  ▲  ろ  🔍  ☀        │
│  Names Dates Extras ● Undo Find Assist
│              ▼                    │
└──────────────────────────────────┘
```

previously calculated

To calculate the volume to adminster do this,

1. Enter the dose on hand.

Dose on hand: 100 .... ◆ mg

2. Enter the volume on hand.

Volume on hand: 200 .... ◆ ml

3. Tap the calculate button [Calculate]

The result will come back in the Volume box:

Volume: 75   ◆ ml

If on the other hand, the dose had not been previously calculated you can calculate the dose and the volume in one operation. Just enter the four required values: patient weight, dosage guideline, dose on hand, volume on hand and then tap the calculate button.

Before you tap the Calculate button, the form would look like:

After you tap the Calculate button both dose and volume would be calculated in a single step. The form would now look like:
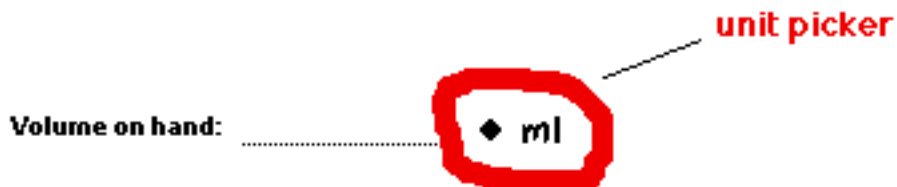
The Dose on Hand Unit Picker

The picker associated with the dose on hand allows you to control the unit metric for the entered value.
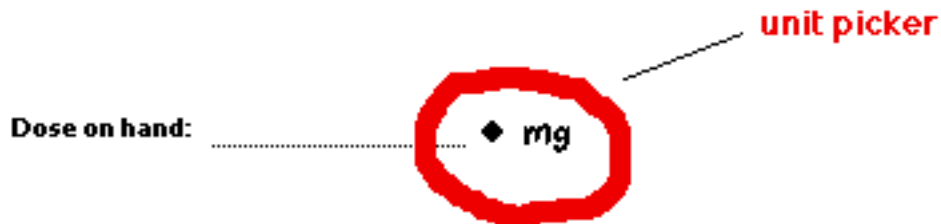
If you change the units for the dose on hand **after** calculating the volume to administer then the calculated results will be automatically cleared.

The Volume on Hand Unit Picker

The picker associated with the volume on hand allows you to control the unit metric for the entered value.

If you change the units for the volume on hand **after** calculating the volume to administer then the calculated results will be automatically cleared.
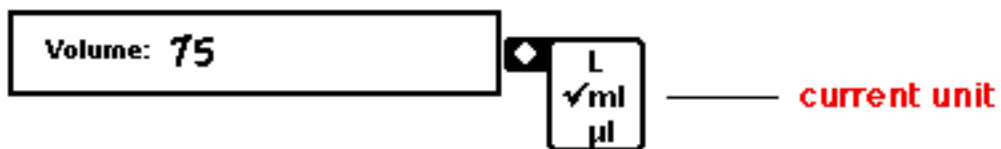
The Volume Unit Picker

The picker associated with the volume allows you to control the unit metric for the calculated volume.
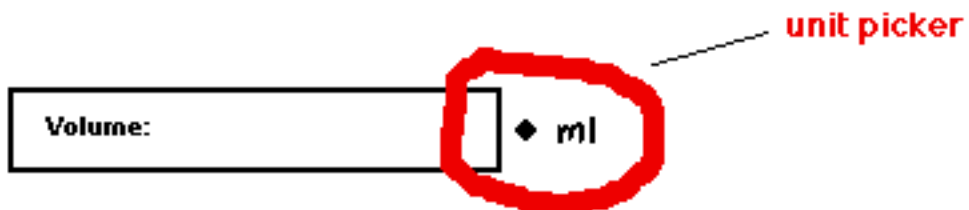
If you have already calculated a volume than the picker can be used to perform unit conversions of the result. To do this just pick the new unit and the volume will be converted to the new unit:
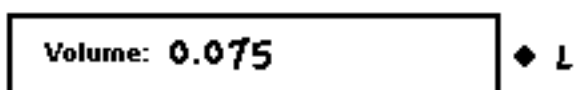
1. Tap the picker to reveal the picklist

2. Pick the new unit

3. The previously calculated volume is converted to the new unit

Clearing the Drug Dosage Calculator

All the fields on the Drug Dosage Calculator can be erased in a single step by tapping the Clear button [Clear].

Saving the Drug Dosage Calculator Data

All the information in the Drug Dosage Calculator persists until the digital book is closed. You can perform calculations, navigate to other pages in the book and come back to the calculator. All your previously entered values and calculations will still be there. Provided you have not closed the book, you can even turn the Newton device off and then back on and your information will still be in the calculator form,

Once you close the book, the calculator will revert to a blank form the very next time you open the book.

Flowing Information between the Calculators

The Drug Dosage Calculator is intelligently linked with the Infusion Rate Calculator.

If you calculate a volume to administer with the Drug Dosage Calculator then that result will flow to the Infusion Rate Calculator and will be automatically entered in the volume to infuse field and the unit picker will be set appropriately.

This automatic information flow will only occur if the Infusion Rate Calculator has no data in it.

The flow occurs when you go to the page containing the Infusion Rate Calculator.

The Infusion Rate Calculator

This calculator will compute the infusion rate given the volume to infuse, the infusion time and the infusion set delivery.

The calculator is essentially a form where you provide inputs into the appropriate fields and then tap a button to initiate the calculation.

When you first access the Infusion Rate Calculator page it will look like the empty form below:

note: If you have previously calculated a volume to administer with the Drug Dosage Calculator then the volume to infuse field will automatically contain that result. More information on this topic can be found in the "Flowing Information between the Calculators" section above.

The Volume to Infuse Unit Picker

The picker associated with the volume to infuse allows you to control the unit metric for the entered value.

Volume to infuse: .... ◆ ml   unit picker
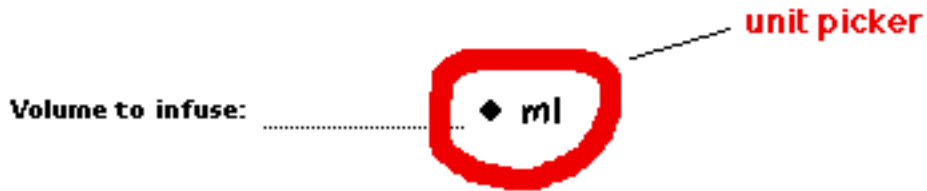
If you change the units for the volume to infuse *after* calculating the infusion rate then the calculated results will be automatically cleared.

Calculating the Infusion Rate

If the volume to administer has been previously calculated by the Drug Dosage Calculator then additional entry of the infusion time and the infusion set delivery is all that's required.

Suppose the volume to administer has been previously calculated and the Infusion Rate Calculator currently looks like this:

Mosby's Emergency Drug Index
Infusion Rate Calculator

Volume to infuse: **0.5** ♦ ml

automatically entered from the Drug Dosage Calculator

Infusion time: _____ minute(s)

Infusion set delivery: _____ drops/ml

Infusion rate: _____ drops/min

[Clear]   [Calculate]

Names   Dates   Extras   Undo   Find   Assist

To calculate the infusion rate do this,

1. Enter the infusion time.

Infusion time: **1**_____ minute(s)

2. Enter the infusion set delivery.

Infusion set delivery: **60**_____ drops/ml

3. Tap the calculate button [Calculate]

The result will come back in the Infusion rate box:

Infusion rate: 30 drops/min

note: If the volume to infuse had not been automatically flowed from the Drug Dosage Calculator then enter the desired value and then proceed with the three steps above.

Clearing the Infusion Rate Calculator

All the fields on the Infusion Rate Calculator can be erased in a single step by tapping the Clear button **Clear**.

Saving the Infusion Rate Calculator Data

All the information in the Infusion Rate Calculator persists until the digital book is closed. You can perform calculations, navigate to other pages in the book and come back to the calculator. All your previously entered values and calculations will still be there. Provided you have not closed the book, you can even turn the Newton device off and then back on and your information will still be in the calculator form,

Once you close the book, the calculator will revert to a blank form the very next time you open the book.