

CLINICIAN QUICK GUIDE FOR UNDERSTANDING medLIMITS™

This reference will help you understand and use the MedLIMITS features of Curlin *PainSmart™* Pumps. For more detailed information, please refer to the User's Manual issued with the pump.

MedLIMITS enable the clinician to set limits restricting a number of infusion parameters, which then allow the patient or caregiver to adjust the therapy as needed, safely, within prescribed limits. These parameters are:

- maximum rate;
- increments in rate;
- time limits on increments in rate;
- maximum amount of each patient bolus;
- minimum interval between patient boluses; and
- maximum number of patient boluses per hour.

There are two steps to setting up and using medLIMITS:

First Turn medLIMITS ON in the Pre-Prescription Menu, and set the “medLIMITS” Setup parameters;

Then While the pump is running, turn medLIMITS ON at the Option Menu, change the desired parameters and continue the infusion.

FIRST

1. At the “medLIMITS” field in the initial Pre-Prescription Menu when the default setting of OFF is highlighted and blinking, press the NO key to change the setting from OFF to ON and then press the YES key.

```

UNITS: m9
CONCEN: 0.0 mg/ml
ADMINRT: IV
LOADDOSE: 0.0 mg
medLIMITS: OFF
NEXT? YES
  
```

2. A screen will be displayed and prompt you for the “medLIMITS Setup” parameters.

```

medLIMITS SETUP
MxRATE: 0.0 mg/hr
ΔRATE: 0.0 mg
ΔTIME: 0:00 HH:MM
MaxBOLS: 0.0 mg
MinINT: 0 MIN
#BOLS/hr: 0
ACCEPT? YES/NO
  
```

- MxRATE (Maximum Rate) limits: ***This is the maximum rate to be allowed in this prescription.*** The minimum rate is 0, and the maximum rate must be equal to or less than 50 ml/hr in Intravenous, 25 ml/hr in Epidural and 5 ml/hr in Subcutaneous. Enter the desired maximum rate, press YES and the cursor will move to the next field.
- ΔRate (Delta Rate): ***This is the maximum amount by which the rate can be changed at one time.*** Some prescriptions include incremental rate limitations (e.g., “Do not raise the rate more than 1 ml in 12 hours”); and if your prescription has this component, use the ΔRate field to enter this medLIMITS. Example: Enter the incremental medLIMITS amount of 1 ml in this field, and press YES to move to the next field. If there is no incremental rate component to your prescription, leave this field set at its default settings of “0” and press YES to move to the next field.
- ΔTime (Delta Time): ***This is the minimum amount of time between each rate change.*** Some prescriptions include incremental time limitations (e.g., “Do not raise the rate more than 1 ml in 12 hours”); and if your prescription has this component, use the ΔTime field to enter this medLIMITS. Example: Enter the incremental medLIMITS amount of 12:00 hours in this field, and press YES to move to the next field. If there is no incremental time component to your prescription, leave this field set at its default settings of “0:00” and press YES to move to the next field.
- Max BOLS (Maximum Bolus Dose): ***This is the maximum amount of the patient bolus dose.*** Use this field to set the upper limit of the Patient Bolus dose. If there is no bolus dose, enter “0”. If a value is given for the maximum bolus dose, use the numeric keys to enter this medLIMITS in this field, press the YES key to accept, and move to the next field. The value entered for this field must be equal to or less than 50 ml in Intravenous, 25 ml in Epidural and 5 ml in Subcutaneous.

- MiniINT (Minimum Bolus Interval): **This is the minimum amount of time (in minutes) between each patient bolus dose.** Use this field to set the minimum amount of time allowed between patient bolus doses. After the correct number of minutes has been entered, press the YES key to accept, and move to the next field.
 - #BOLS/hr (Number of Boluses allowed per hour): **This is the maximum number of patient bolus doses per hour.** Use this field to enter the maximum number of patient bolus per hour. When the correct medLIMITS has been entered, press the YES key to accept, and move to the next field.
 - ACCEPT? When all the medLIMITS fields are correct, press YES at the “Accept?” field. The medLIMITS are now entered and the display returns to the Pre-Prescription screen.
3. Press YES at NEXT? And continue entering the rest of the prescription as prompted. When the prescription is complete, the following screen will display:

```

PRESS
RUN to START
NO to REVIEW
OPTIONS or PRIME
  
```

4. Press the RUN key to start the infusion.

THEN

5. While the pump is running, press the green OPTIONS key on the keypad. The Options Menu will display a number of options to allow you to adjust the prescription. medLIMITS is displayed on the Options Menu as “medLMTS”.
6. Use the DOWN ARROW key to move the cursor to this field:

OPTIONS LOCK OFF LOCK: OFF Clin DOSE: OFF SHFTTOT: OFF	1 2 3 ON ON
HRLYTOT: OFF CLRHRLY: OFF medLMTS: OFF DN Occlu: HIGH AIR SENS: 0.5 ml AUDIO: 9 PWRCK? OFF ACCEPT OPT? YES/NO	ON ON ON LOW 2.0 OFF 0.1 1 - 9 ON

7. Press the NO key to change the MedLMTS option from OFF to ON, then press the YES key. The “TITRATE medLMTS” Menu will appear:

```

TITRATE medLMTS
BASLRATE: 20.0 mg/hr
Pt. BOLUS: 5.0 mg
BOLS INT: 10 MIN
#BOLS/hr: 6
ACCEPT? YES/NO
  
```

8. The values currently in use will be displayed in these fields. If a change is allowed at this time, you will be able to increase or decrease the values within the pre-set medLIMITS for each field. If you attempt to enter a value that exceeds the pre-set medLIMITS or if the pre-set time limit has not yet been reached, an “ALERT” message will appear.
9. Use the numeric keys to enter the new rate, bolus, bolus interval or number of bolus per hour. Each field must be accepted by pressing the YES key.
10. When new values are entered that fall within the pre-set MedLIMITS, each time you press the YES key, the cursor will continue to advance to the “ACCEPT?” field. Press the YES key again and the display will return to the Options Menu. Press the YES key at each remaining field of the Options Menu. When you press YES at the “ACCEPT OPT?” field, the display will return to the running screen, the new rate will be displayed and, if changed, the new bolus amount, times and numbers will be in effect.