Medtronic
Engineering the extraordinary

TIP CARD

Roller study for the SynchroMed™ II pump

Roller study for the SynchroMed™ pump

If the pump motor stops following a breakdown, a 2-tone alarm sounds and the programmer indicates when testing the pump that the motor has stalled. If the system does not indicate that the motor has stalled, but malfunctioning is suspected, carry out the procedure below.

Roller study procedure

The roller study procedure involves programming a physician bolus that moves the pump rollers 60° from their original position. Monitoring the pump roller position before and after the bolus will either confirm or rule out a motor stall.

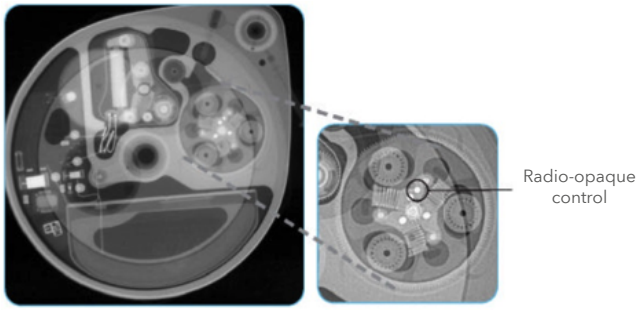
Carefully review all the steps of the following procedure before you begin:

1. If a bolus of approximately 10 µL is likely to cause an overdose (see emergency procedure sheets in the event of baclofen or morphine overdose), aspirate the contents of the catheter of 1 ml-2 ml of liquid via the access port lateral to the catheter. Use a Medtronic catheter access kit to do this (ref. 8540 for the SynchroMed™ II pump). For further details on the access procedure for the lateral access port, consult the manual that comes with the kit

2. Program the pump in "Simple Continuous" mode, following the lowest possible daily rate (limit less than the interval suggested on the screen).

3. Using radiography or fluoroscopy, track the position of the pump rotor and the radio-opaque control it contains. Overexpose the image where the rotor is most visible (Figures 1 and 2).

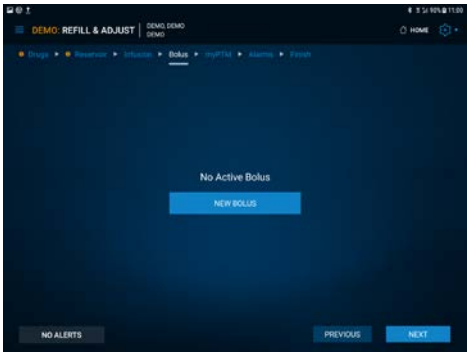
NB : The radio-opaque control appears as a dot on one of the arms of the rotor and enables its movement to be visualized.

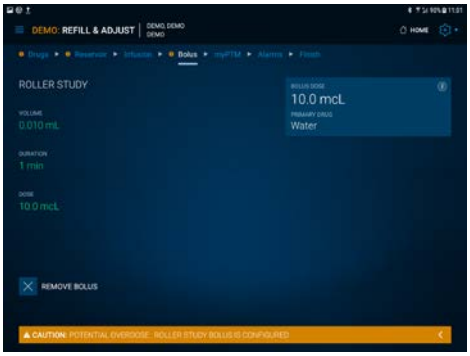


4 Program a bolus of 0.01 mL for a period of 1 minute: (00:01) (hh:mm).
It is possible to program a bolus of 0.01 ml for a period of 1 minute:

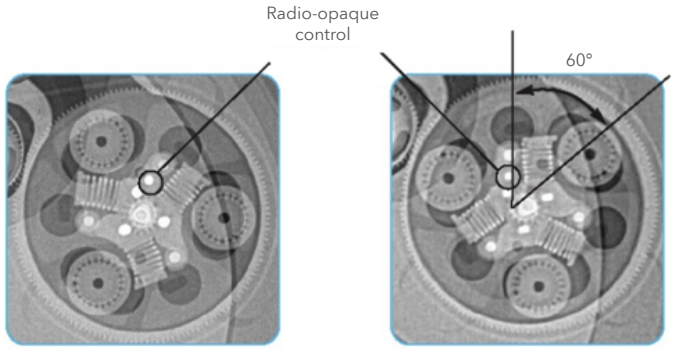
By programming a bolus as follows:

- Click “select” in “roller study”
- Re-enter “0.010 ml” in Volume
- Put “00:01” in Time





5 Fluoroscopy can be used to track the movement of the rotor during the bolus (Figures 3 and 4). You can also wait for 2 minutes until the bolus finishes. Next, use radioscopy or fluoroscopy to determine the new position of the rotor. It should then have rotated by approximately 60°.



Figures 3 and 4: Rotation of the Synchromed™ II pump rotor

6 If the rotor has not moved, or has rotated by less than 60°, the motor may have broken down.

7 If the rotor is functioning correctly, check that the catheter is not blocked. If this is the case, consult the catheter contrast test procedures. If applicable, reprogram the pump to restart normal administration.

Reference
SynchroMed™ II Programmable Infusion Systems, Clinical Reference Guide.

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