NOTICE: Using CURLIN® Infusion Pumps with Extension Tubing

Dear Valued Customer,

During these challenging times, health care professionals are being asked to adjust the way in which we have practiced for many years. Recently the Infusion Nurses Society (INS) published an article: "Frequently Asked Questions Related to COVID-19 Health Care Challenges". In this article, question one relates to the practice of using extension tubing with IV pumps allowing the infusion pump to be placed outside of the isolated patient’s room.

At Moog Medical, we are here to support our customers and those on the front line fighting COVID-19. We agree with the response of INS regarding the risks and challenges associated with managing an infusion from outside of the patient’s room. In addition, Moog Medical makes the following recommendations when extending the length of CURLIN administration sets by connecting extension sets:

- **Priming Volume:** Consider the priming volume of the entire fluid pathway.
  - Medication/Fluid remaining in the line is not delivered to the patient, potentially reducing the dose amount which was intended to be delivered.
  - Under filling the IV bag may allow IV bags to run dry between bag changes. This would require removal of air from the downstream tubing.
  - Always remove the air from the IV bag/drug reservoir when using ambulatory pumps - their administration sets typically do not have drip chambers.

- **Downstream Occlusions:** Adding extension tubing has an effect on the pressure within the line.
  - When there is an occlusion, it may take longer for the pressure alarm threshold to be reached, particularly at very low rates. During this time, medication is not being delivered.
    - Consider setting the downstream occlusion setting to the Low pressure setting on the CURLIN pump.
    - It is important to remember to open clamps on both the patient’s catheter and administration set before leaving the room.
  - At high rates or during short boluses (e.g. During a PCA bolus), long extension sets may lead to nuisance downstream occlusion alarms.
    - Consider setting the downstream occlusion sensitivity to High pressure setting if nuisance alarms are experienced.

Moog Medical does not currently manufacture IV pump extension tubing. Below is a list of manufacturers who may be able to supply IV extension sets:

- Wolf-Pak (Wolf Medical)
- ICU Medical
- Baxter
- Medline

Moog Medical has not performed testing on the CURLIN pumps with any of these manufacturers’ extension sets. Therefore, it is recommended to follow the INS recommendations as well as the considerations listed above.

Sincerely,

Ben Noonan

Ben Noonan
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