



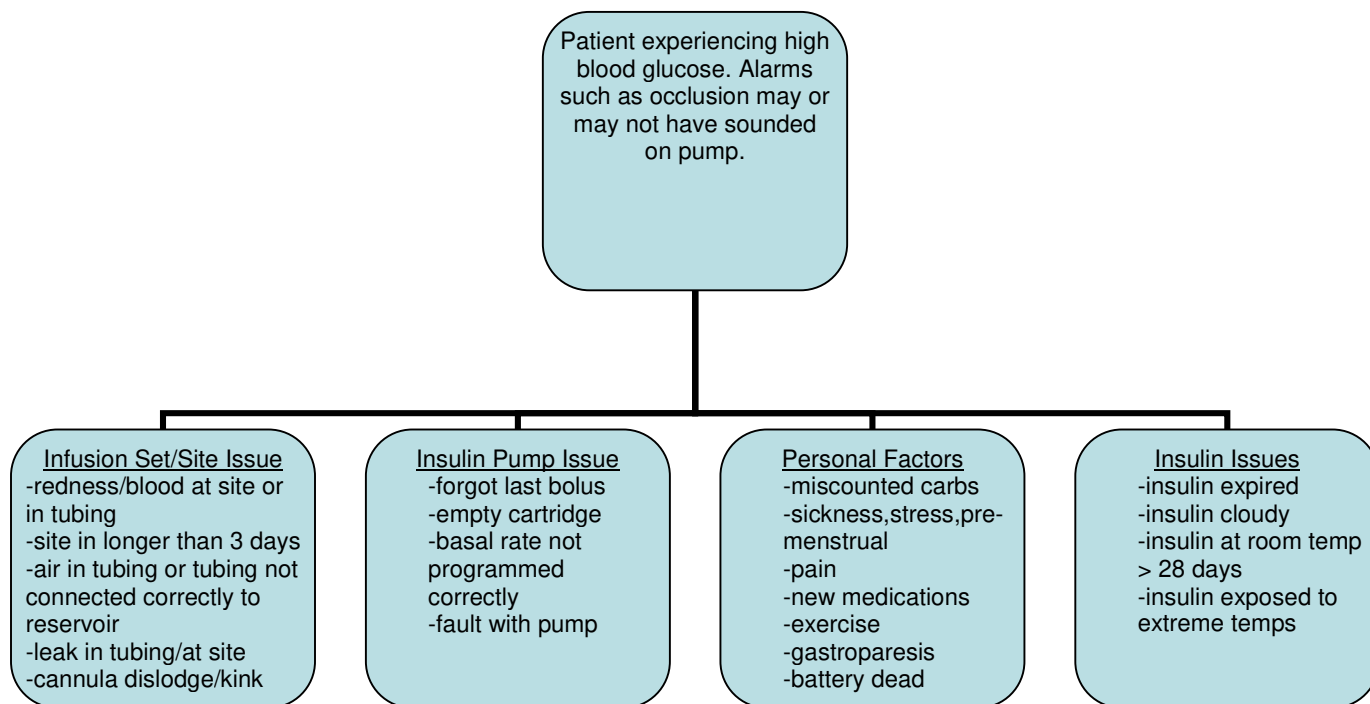
perfecting pumps: unexplained highs and ketones

why worry?

High blood glucose (BG) leads to complications of diabetes and Diabetic Ketoacidosis (DKA) can occur very rapidly if a pump problem occurs. DKA is a very dangerous condition that can occur quickly and needs to be treated quickly.

most common causes of highs	solution
<input type="checkbox"/> Miscalculated Carbs	Do a 24hr diet history to assess carb counting skills.
<input type="checkbox"/> Insulin delivery issue at infusion site	Run through the following "flow chart" with patient to diagnose the problem.

unexplained highs flow chart



smart pumping tip

when in doubt change it out!!!!

If you have unexplained high BG'S readings >12-14mmol/l or more then twice in a row, change the cartridge, reservoir and tubing and check for ketones.

Caution:

Nausea is an early sign of DKA.

If you are feeling sick to your stomach, check for ketones.



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Solutions to pump problems

problem	potential cause	trouble shooting
Clog	-#1 cause is a kink in cannula or a scar at infusion site -pump was suspended for several hours -expired insulin -you may have used lotions/skin products in the insertion site area -tubing exposed to extreme temperatures	1. Remove entire infusion set from body and prime tubing as per manufacturers guidelines. If no insulin appears it is a safe assumption that there is a clog/blockage somewhere in the tubing. 2. Change the ENITRE set including reservoir, site and tubing. 3. Use new batch of insulin. 4. Call your pump company support line if needed. 5. Use the appropriate size cannula for your body type.
Leaks	line leaks hub leaks o-ring leaks	Replace your entire set. Replace your entire set. Replace your entire set.
Tunneling of insulin	-may happen if you site gets pulled or dislodged slightly -more common with 90 degree sites	1. Make sure you tuck in loops of tubing so they do not get caught. 2. Change your site every 3 days.

