**Catheter − Is It Really Necessary?**

**By Hallidae Thomason**

Many people's worst nightmare is the day when they revert back to infancy in the ability to control

their bodily functions namely defecating and urinating. The market for products that are designed to make life easier to live with incontinence of bowel or bladder is large and here to stay. This includes products like depends adult diapers and urinary catheter models that are in a very competitive market with one another.

Urinary catheters can be placed more permanently and suprapubically or they can be placed in a less permanent but still indwelling manner with the foley catheter. Yet another option is the on demand straight catheter which can even be used by the patient on themselves when the feel the urge or at scheduled times. These are more cleanly typically when referring to outward hygienic cleanliness and are certainly a lot more convenient than having to change diapers whenever one has urinated.

What most people don't realize is that the catheter adds to the mix of potential problems some very serious ones and possibly deadly complications that may far and away outweigh the surface benefits of catheterization. Infection, Infection, Infection!

The urinary catheter dramatically increases the risk of infection of the urinary tract ranging from simple and irritating bladder infections to more serious pyelonephritis or infection of the kidneys which have the tendency of turning into deadly bloodstream infections. It is a little known or at least acknowledged fact that sepsis with a UTI as the source infection is one of the most common killers of the elderly in the US. Often these infections have something to do with instrumentation secondary to urinary incontinence.

So how does the catheter cause all of these problems? Well it is the primary vehicle for the introduction of a bacteria into what is a sterile environment. Certain bacteria are well suited to inhabit the urogenital tract and will thrive if introduced into this environment. These bacteria will then ascend through the ureters up into the kidneys and into the blood stream, if the immune system is weakened (as it commonly is in the elderly) the infection will quickly spread in the body through blood and overwhelms the body's defenses causing the patient to quickly succumb.

The order of decreasing likeliness for this infection introduction is suprapubic with highest infection rates, foley is next, intermittent straight catheter, and then adult diapers is virtually infection free as far as increased risk is concerned. So though they may not be the most fashionable or the lowest maintenance they may be life saving options.

Hallidae Thomason found out about the danger associate with the urinary catheter the hard way and she wants to avoid this for other people. To learn more go to

http://www.catheterhelp.info

**Getting To Know Your Insulin Pump**

**By Scott Michaels**

Some health care providers prefer the insulin pump because its slow release of insulin mimics how a normally working pancreas would release insulin. Studies vary on whether the pump provides better blood glucose control than multiple daily injections. Another advantage of the insulin pump is that it frees you from having to measure insulin into a syringe.

An insulin pump is a medical device continuously delivering insulin under the skin through a catheter. It's usually connects somewhere in the waist area. There's a new generation of insulin pumps, called a patch pump. Currently patch pumps are only available from OmniPod. Patch pumps adhere directly to the skin with no catheter tubing showing. It then infuses insulin directly under the skin.

Either pump delivers insulin at an hourly rate. For instance, the rate might be 1.1 units an hour. However, the pump delivers different rates at different times of day depending on the patient's insulin infusion (or basal) rates that are programmed into the pump.

The amount of insulin delivered depends on two things. First by the amount of carbohydrate a patient eats using an insulin to carbohydrate ratio, and then by the correction factor, or the ratio of the number of milligrams per deciliter (mg/dl) a patient's blood sugar will be lowered by one insulin unit. If a patient eats 60 grams carbohydrate at meals and has an insulin−carbohydrate ratio of one insulin unit to 15 grams carbohydrate, the patient's insulin injection at that meal would 4 units.

However, if a patient has a correction factor of one unit to 50 points of blood sugar, the pump should give an additional injection of 2.5 units to lower his blood sugar from 245 mg/dl to a needed level of 120 mg/dl.

To use an insulin pump a patient must be able to manage it. This involves knowledge at several levels. First, patients must understand how to insert the catheter when using the pump, or how to attach the newer patch pump to their abdomen. They must also be able to push the right buttons on the pump to deliver proper insulin doses and adjust the basal rates.

Then the patient needs to be skilled in carbohydrate counting so they are able to deliver correct insulin doses at mealtimes. And they should be willing to check their blood glucose levels at least four to six

times a day. This assures that they detect a pump failure and prevent hyperglycemia and diabetic ketoacidosis (DKA, in type 1 patients).

Patient attention is important because no long−acting insulin is used in type 1 patients who use pumps and they need to correct high− or low−blood sugars before they are clinically observable and symptomatic.

Insulin pump therapy is almost never needed to maintain life because insulin can be easily injected under the skin. Most insurers will cover insulin pump therapy in situations where insulin pump therapy will significantly improve the level of diabetes care and control over and above multidose insulin (MDI) therapy. This includes cases where:

The glucose control in multidose insulin therapy is not optimal with glycated hemoglobin (Hba1c>) than

the ADA (American Diabetes Association) recommended goal of 7%. An endocrinologist, who will be able to help the patient learn how to use and the pump and adjust basal and correction doses, prescribes the pump.

The patient has type 1 diabetes. However, in many situations patients with type 2 diabetes will benefit from the pump as well. Presence of hypoglycemia despite adjustments in insulin doses and utilizing carbohydrate counting to help decide pre−meal insulin doses in patients who are using MDI therapy.

Presence of hyperglycemia−especially as revealed by high morning readings (Dawn phenomenon) where increasing basal rates of insulin in the early morning hours would help to better control blood sugar levels.

Insurers require medical charts from the prescribing doctor as well as blood sugar logs from the patient to prove that there is real medical necessity.

Become a insulin pump expert.

http://www.insulinpumps.diabetic−source.com


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