

Subject: insulin protocol

Hello all

As many of you know we have had a protocol for insulin therapy for outpatients at the Riverside Campus for several years. About this time last year Wayne Barry asked if we could bring it over here. Great idea I thought – I'll get right on that.

Well, a year of committee wrangling later we're good to go.

Please find enclosed a copy of the orders – those who work at the Riverside have probably already seen or filled them out.

For those who haven't used the orders please note that these are for INSULIN REQUIRING SURGICAL DAY CARE PATIENTS ONLY.

The workload involved for non-insulin requiring diabetics wasn't felt to be worthwhile in our pilot study at the Riverside and the transfer of care to the wards was deemed to problematic. So give these a skip in those diabetics on oral hypoglycemics (only) and SDA/inpatients.

The orders have 2 parts – SPO 27 is for preoperative care, SPO28 is for postoperative care. There are protocols in each for glucoscans, IV fluids, and management of high or low glucose readings

The only thing you'll need to consider is on SPO27 Preoperative Management - Day of Surgery. This section contains the lines:

Administer sc, one half (1/2) of patient's usual total morning insulin with longer acting insulin:

Dose: _____ units of
o Humulin N,
o Novolin ge NPH,
o Humulin L
o Other: _____

The first bit is some guidance regarding how much insulin to order. A few issues to consider here...

1. We'd like to avoid short acting insulins like Humulin R, Novolin R, Toronto, etc in our ambulatory patients to minimize our impact on at home diabetes care. While onset of action is in 30 minutes the peak effect of these insulins is 3-4 hours post administration - just about the time most of these folks are headed out the door.

2. Diabetics will still need a basal insulin source so we're providing intermediate duration insulin (Humulin N, Novolin NPH) that has a slower onset (1.5 hours), longer and gentler peak (4-10 hours) and prolonged duration of action (22hours).

3. Should patients have hyperglycemia requiring treatment the protocol specifies Humalog, an ultra short acting insulin whose onset (10 minutes, peak 1.5 hours, and duration 4 hours) are unlikely to have a lasting effect on the patients usual insulin therapy.

SO when ordering please

- a. determine the total dose of all types insulin the patient uses in the morning.
- b. add 'em all together.
- c. Divide by 2.
- d. Write this number in the space labeled dose.
- e. Tick off the brand of intermediate insulin the patient normally takes.
- f. Sign both sheets
- g. You're done.

Example 1.

A patient takes Humulin NPH 30 units and Humulin R 12 units in the morning. Humulin R 10 units at lunch. Humulin NPH 30 units with Humulin R 8 units at dinner.

Add the 30 units of Humulin NPH and the 12 units of Humulin R (42 units total), divide by 2, and order 21 units of Humulin N.

Example 2

A patient takes 30 units of Novolin 30/70 in the morning and another 20 units of 30/70 at dinner.”

Great. You don't have to do any addition. Give the patient 15 units of Novolin NPH and you're away.

We can't cover everything in these orders – insulin pumps, the guy who take 60 units of ultralente and bedtime etc. When in doubt give me a shout (719.2808)

We are conducting a CQI study at both Civic and General Campuses and will be determining if this protocol provides satisfactory glycemic control both in hospital and at home following surgery. Please feel free to ask me about these if you have any questions.

Greg