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Individualize Treatment of Inpatient Hyperglycemia

This complimentary article from Hospital Pharmacist's Letter *is being provided to readers of* Prescriber's Letter, *who may find its content relevant to their practice.*

New data will fuel debate about sliding scale insulin for inpatient hyperglycemia...in patients withOUT type 1 diabetes.

Guidelines continue to recommend basal or basal-bolus insulin...instead of sliding scale...to reduce HYPERglycemia.

But this is driven by limited evidence.

And many clinicians haven't embraced basal-bolus...since it can increase HYPOglycemia risk and is labor intensive.

Now two studies in non-ICU patients add real-world perspective.

Both generally support a role for sliding scale alone, especially when admission glucose is under 180 mg/dL. And one suggests that basal-bolus may not be a preferred regimen.

These data are limited. But they reinforce current practice of individualizing hyperglycemia treatment...based on the patient's current blood glucose, home management, hypoglycemia risk, etc.

Keep aiming for a blood glucose under 180 mg/dL for most floor and ICU patients...while avoiding HYPOglycemia.

But use a higher goal in some cases...such as under 250 mg/dL for an asymptomatic floor patient with severe kidney disease.

Start with sliding scale for many non-ICU patients, especially if they're well managed on 1 or 2 non-insulin meds at home...or don't have diabetes.

If hyperglycemia persists for 24 to 48 hours, add a once-daily basal insulin dose...such as 0.15 to 0.25 units/kg.

Or consider starting with basal plus sliding scale for patients well managed at home on insulin or several non-insulin meds.

Save basal-bolus plus sliding scale for patients with good enteral intake who use this regimen at home...or have uncontrolled glucose on higher insulin doses, such as more than 0.6 units/kg/day.

Ensure your protocol provides clear instructions for basal-bolus plus sliding scale and review steps with nursing...to avoid errors.

Before discharge, generally restart home diabetes meds...stop inpatient insulin regimens...and document the plan. Also verify follow-up within 1 to 2 weeks if diabetes regimens are changed.

Key References:

-Ann Intern Med. 2021 Aug;174(8):HO2-HO4
-J Hosp Med. 2021 Aug;16(8):462-468
-J Endocr Soc. 2021 Jun 16;5(8):bvab101
-J Endocr Soc. 2021 Aug 18;5(10):bvab134
-Diabetes Care. 2022 Jan 1;45(Suppl 1):S244-S253

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