

HIGHLIGHTS OF **ENDO**Online2020

INCLUDING PRESENTATIONS SCHEDULED FOR ENDO 2020

FOCUS ON DIABETES & COMORBIDITIES

Time in Range: The Power of Partnership

Presented by

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Key messages

- Any patient treated with intensive insulin therapy is a candidate for continuous glucose monitoring.
- Choice of continuous glucose monitoring can be made using shared decision making.
- Patients need adequate education on use of the device, interpreting trend arrows, and adjusting insulin dose.

Background

What do we already know about this topic?

- The ideal candidates for continuous glucose monitoring (CGM) are likely represented by any patient treated by intensive insulin therapy, in addition to those with frequent hypoglycemia, excessive glucose variability, and the desire to improve glycemia control.
- Patients should also be willing and able to use CGM on a nearly daily basis, learn how to use the device, and receive ongoing education.
- Consensus on CGM use has been reached across organization, including the ADA, AACE, and Endocrine Society.
- Most guidelines consider CGM to be of use in type 1 diabetes, while consensus is less consolidated in type 2 diabetes.

The importance of the education (1)

- Education is paramount to success with CGM, especially since there are several different systems available.
- Patients should understand the fundamentals of sensor insertion, calibration, and setting alerts.
- Realistic expectations also need to be established (e.g. CGM will not eliminate the need for fingerstick glucose monitoring), and know how to calibrate, validate the device.
- In older adults, the ability to see and hear alarms and alerts should be ensured, and family and caregivers need to be educated on use of the device.
- The benefits of using the device daily should be emphasized.

The importance of the education (2)

- Patients need to understand the trend arrows in the app, and how to correct for insulin dose.
- Patients should avoid correcting for hyperglycemia for the first 2 hours following a mealtime bolus to prevent insulin stacking.
- For older adults start conservatively to reduce the risk of hypoglycemia.
- Medicare criteria when ordering CGM include history of hypoglycemia unawareness, severe glycemic excursions, and the demonstrated ability to use CGM, in addition to documented evidence of self-monitoring of blood glucose at least 4 or more times per day.
- Use of trend arrows is the new standard approach to insulin dosing.

Adult Postprandial Management Using Trend Arrows for up to 4 hrs

Avoid correcting hyperglycemia for the first 2 hours following a mealtime bolus to prevent insulin stacking.

From 2–4 hours
following mealtime:

>250 mg/dL



- ▶ Confirm with fingerstick
- ▶ Check for ketones if BG is >300 mg/dL.
- ▶ Take corrective insulin dose by injection (both MDI-treated and insulin pump users).
- ▶ If 2 UP after additional 1 hr:
 - Confirm with fingerstick. Take additional corrective insulin.
 - Change infusion site (if using an insulin pump).

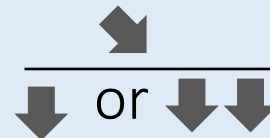
**Hyperglycemia
Prevention**

150–250 mg/dL



- ▶ Consider taking a correction bolus using CF.
- ▶ Monitor for the next 2 hrs.
- ▶ Avoid additional correction doses for 2 hrs.

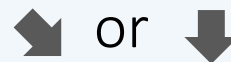
Near 150 mg/dL



- ▶ Re-check CGM in 15 min.
- ▶ Re-check CGM in 15 min.

**Hypoglycemia
Prevention**

Near 100 mg/dL



- ▶ Consider taking 15 g fast-acting CHO.
- ▶ Re-check CGM in 20 min. If CGM <70 mg/dL with downward arrows, confirm with fingerstick and take an additional 15 g fast-acting CHO.
- ▶ If CGM reading continues to drop or CGM level has not begun to rise as expected, confirm with fingerstick and re-check CGM every 15 min.



- ▶ Follow instructions above but take 30 g of fast-acting carbohydrate.

Adapted from Kruger DF. ENDO 2020.

The importance of the education (3)

- The patient must be shown what the arrows indicate, and be individually instructed on how to react to trend arrows, through medication adjustment, activity levels, or hypoglycemia prevention.
- This is also important as there is no uniformity on trend arrows among different CGM devices.
- The Endocrine Society has given guidance on the patterns and interpretation of trend arrows.
- When communicating with patients, look for patterns of low and high glucose levels, as well as for areas of wide variability.
- Lastly, agree on an action plan with the patients.

Nine Steps to Interpreting AGP

Empowering and Engaging Patients

- 1 Check for adequate data.
- 2 **Mark up the AGP**, noting factors affecting management.
- 3 **Ask** the patient “What do you see?” **Listen**.
- 4 Look for patterns of **low** glucose levels.
- 5 Look for patterns of **high** glucose levels.
- 6 Look for areas of wide **glucose variability**.
- 7 **Compare** to past AGP and reinforce successful strategies.
- 8 Agree on an **action plan** with patient.
- 9 **Copy** the AGP for the patient and the EMR.

Adapted from Kruger DF. ENDO 2020.

Conclusions

- Work with your patients to find the most appropriate CGM.
- Educate patients on use of trend arrows.
- Work with your clinical team to implement consistent download, interpretation, and documentation of CGM data.