T:slim x 2 Case study 1

Automode percentage = 94% (Above minimum 90% target)

Time below range (TBR, <3.9 mmol/L) = 0% (no concerns and well below 4% cut-off)

Time in range (3.9-10.0 mmol/L) = 38% (well below target of 70%)

Obvious areas of glucose excursions = High from 09:00 to 02:00

Total Daily Dose and % basal = 128 units at 1.45 units per kg (very high) with 49% as basal (usual range)

Survive advice:

- Not changing cannula after high for 90 minutes BUT this is because the glucose is always high and therefore not unexpected. Once back in target this becomes more relevant.

Thrive advice:

- Giving insulin for all meals and carb amounts are reasonably specific and 171g pr day is within expectations
- May not be waiting 15 minutes to eat

Potential automated setting issues:

- Control IQ is working far too weak, lots of basal increases and auto-corrections that are having very little impact on reducing high glucose levels.
- Programmed basal insulin seems very weak at 37 units per day when getting 63 units via Control IQ – may need to go with one flat rate and build up in two stages, first up to 2.1 units per hour (50 units), then if still high to 2.5 units per hour (60 units)
- Programmed correction factors seem weak at 1.4- 1.9. Could start by dropping all to 1.3 and review along with basal changes, knowing can drop to 1.1 but with the option of varying through the day, according to insulin sensitivity.
- Carb ratios seems fine

Updates to manual mode settings:

- Update max basal to 6.5 units per hour

Questions / Plans for consultations:

- *Positives:*
  a. Congratulate on entering meal bolus's, changing cannula on time and downloading
- *Ask for their insight:*
  a. What have you observed and what do you think is going well?
  b. What do you think needs to be changed/improved to help get more TIR?
  c. What's frustrating you about the system?
- *Ask questions:*
  a. What do you do when max bolus of 25 units is reached?
  b. Do you give meal Insulin 15 mins pre meal
- *Negotiate a plan:*
  a. Two-step plan for updating basal and correction factor settings.
  b. Follow-up arrangements with the aim of getting to 50% TIR first then 60%, then 70%

Tslim x 2 Case study 2

Automode percentage = 93% (Above 90% minimum target)

Time below range (TBR, <3.9 mmol/L) = 3% (Below cut-off of 4% but approaching)

Time in range (3.9-10.0 mmol/L) = 76% (exceeding target of 70%)

Obvious areas of glucose excursions = Creeping high from 18:00 to 02:00

Total Daily Dose and % basal = 45 units at 0.58 units per kg (medium) with 30% as basal (lower than expected)

Survive advice:

- No concerns.

Thrive advice:

- Giving insulin for all meals and carb amounts are reasonably specific but 417g carbs per day with 8.6 bolus's does not sound right – is she "fake carbing"
- Seems to be wating 15 minutes

Potential automated setting issues:

- Lots of extra carb bolus's, maybe fake carbs" stopping the algorithm from working, but overnight the basal s working hard and auto corrections are not working
- Programmed basal insulin seems very weak at 13.9 units and maybe so due to "fake carbing." If fake carbing stopped, expected basal at 45% would be 0.8untis per hour = 19 units per hour
- Programmed correction factors during the dy at 3.4 seem weak. Could start by dropping to 2.9 and review along with basal changes.
- Carb ratios could be weak but may be sufficient once the basal is increased.

Updates to manual mode settings:

- Update max basal to 2.1 units per hour

Questions / Plans for consultations:

- *Positives:*
  - a. Congratulate on entering meal bolus's, changing cannula on time, downloading and working had to get more than 70% TIR
- *Ask for their insight:*
  - a. What have you observed and what do you think is going well?
  - b. What do you think needs to be changed?
  - c. What's frustrating you about the system?
- *Ask questions:*
  - a. Are you "fake carbing" explain this is sensible to get tight control but want to help relive the burden.
- *Negotiate a plan:*
  - a. Two-step plan for updating basal and correction factor settings.
  - b. Follow-up arrangements with the aim of getting meal bolus's to 3-4 per day and the system having optimal setting whilst keeping above 70% TIR and less than 4% TB