7. Kids: Mastering additional challenges… *(NN)* V15

- - - - - - call for contributions, chapter and case studies - - - - - - - - - - - - - -

Points from section 1.6 that need to be detailed here :

To establish and maintain a FCL for kids brings about some extra challenges if:

- Lyumjev is not available or well tolerated
- Hourly basal rate is very low, providing a poor basis for big SMBs *=> Measures to get sufficient initial SMB sizes?*
- Diet is rich in sweet components. With the typical low blood volume of a small body, strong tendency towards very high bg spikes! *=> Provisions for erratic hi carb snacking/ the occasional sweet drink?*
- Going through marked changes of insulin sensitivity or of circadian pattern makes it difficult to keep the FCL appropriately tuned.

  This problem is about the same in Hybrid Closed Looping. However, now you might expect miracles from the FCL. This is not going to happen. You still should try to set appropriate temp. changed profiles, that serve also as a basis for your autoISF FCL.
- Discipline is poor regarding keeping Bluetooth connectivity and infusion sites perfectly running
- Between kid and supervising parent it must be guranteed, especially in the initial weeks, that an eye is kept on whether the FCL is working about as to be expected.

FCL => implications for remote parent monitoring ? (may have to come at the end, when all potential problems were discussed)

Re. pre-requisites, CGM, for kids: what works well ??

End with something like:

There are a couple of parents and kids pioneering this area, see also Case studies 7.x.

We highlighted areas that would require some minimum compliance. In the end it comes down to compare the achieved ease in daily use and achieved %TIR to how it was when hybrid closed looping.

If users pre-bolus for kids …..always, or sometimes? How(much)? =>

Make sure to give **details** …

…. and possibly a **warning**, regarding implications for settings (I could imagine bgAccel_ISF-weight tuning should be factor 5 if not 10 milder in that case = … and not be good if sometimes you pre-bolus a bit, and sometimes not ????)

If not G6 is used: (re CGMs, observe latest developments re 1 minute vs 5 minute readings, see github/ga-zelle pls)

Pls include implications of (from wiki aaps):

Dexcom G6 or Dexcom ONE with xDrip+ Companion Mode

The noise-level data is not shared with AAPS using this method. Therefore 'Enable SMB always' and 'Enable SMB after carbs' are disabled.

xDrip+ with FreeStyle Libre

None of the FreeStyle Libre systems (FSL1, FSL2, or FSL3) broadcast any information about the level of noise detected in the readings, and therefore 'Enable SMB always' 'Enable SMB after carbs' are disabled for all setups using the FreeStyle Libre.

In addition, many people have reported the FreeStyle Libre often produces noisy data. In xDrip+ there are a few options to help with this:

Smooth Sensor Noise. In xDrip+ Settings > xDrip+ Display Settings ensure that Smooth Sensor Noise is turned on. This attempts to apply smoothing to noisy data.

Smooth Sensor Noise (Ultrasensitive). If you are still seeing noisy data in xDrip+ you can apply more aggressive smoothing using the Smooth Sensor Noise (Ultrasensitive) setting. This will attempt to apply smoothing even on very low levels of detected noise. To do this, first enable engineering mode in xDrip+. Then navigate to Settings > xDrip+ Display Settings and turn on Smooth Sensor Noise (Ultrasensitive).