

Supporting CYP with a 'High HbA1c'

Dr Jane Tyler-Collings & Dr Kate Moss
Clinical Psychologists
Stockport & Tameside (Greater Manchester)

What contributes to high HbA1c?



- Diabetes 'burnout'
- Fear of hypos
- Negative life events
- Frequent DKA's?
- Higher incidence of DKA in adolescents

42

Factors that affect Blood Glucose

FOOD

- ↑↑ 1 Carbohydrate quantity
- ↑ 2 Carbohydrate type
- ↑ 3 Fat
- ↑ 4 Protein
- ↑ 5 Caffeine
- ↓↑ 6 Alcohol
- ↓↑ 7 Meal timing
- ↑ 8 Dehydration
- ? 9 Personal microbiome

MEDICATION

- ↓ 10 Medication dose
- ↓↑ 11 Medication timing
- ↓↑ 12 Medication interactions
- ↑↑ 13 Steroid administration
- ↑ 14 Niacin (Vitamin B3)

ACTIVITY

- ↓ 15 Light exercise
- ↓↑ 16 High-intensity & moderate exercise
- ↓ 17 Level of fitness/training
- ↓↑ 18 Time of day
- ↓↑ 19 Food and insulin timing

The arrows show the general effect these 42 factors seem to have on blood glucose based on scientific research and/or our experiences at diaTribe. However, not every individual will respond in the same way, so the best way to see how a factor affects you is through your own data: check your blood glucose more often with a meter or wear a CGM and look for patterns.

BIOLOGICAL

- ↑ 20 Too little sleep
- ↑ 21 Stress and illness
- ↓ 22 Recent hypoglycemia
- ↑ 23 During-sleep blood sugars
- ↑ 24 Dawn phenomenon
- ↑ 25 Infusion set issues
- ↑ 26 Scar tissue / lipodystrophy
- ↓↓ 27 Intramuscular insulin delivery
- ↑ 28 Allergies
- ↑ 29 A higher BG level (glucotoxicity)
- ↓↑ 30 Periods (menstruation)
- ↑↑ 31 Puberty
- ↓↑ 32 Celiac disease
- ↑ 33 Smoking

ENVIRONMENTAL

- ↑ 34 Expired insulin
- ↓↑ 35 Inaccurate BG reading
- ↓↑ 36 Outside temperature
- ↑ 37 Sunburn
- ? 38 Altitude

BEHAVIOR & DECISIONS

- ↓ 39 More frequent BG checks
- ↓↑ 40 Default options and choices
- ↓↑ 41 Decision-making biases
- ↓↑ 42 Family and social pressures

How does it make everyone feel? And what does that have us doing?

Young person: numb, angry, frustrated, low, scared

Parent/s carer/s: frustrated, angry, scared, embarrassed

MDT: frustrated, worried for YP & professionally,
helpless

Psychologist: frustrated, worried, helpless

Psychology's role?

- * **Variations across teams dependent on psychology time, focus and interests of team.**
 - * **Individual appointments with YP**
 - * **Supporting MDT**
 - * **Developing pathways and paperwork**
- * E.g. Stepping Hill: High HbA1c pathway – extra nursing clinics, referral from team to psychology, consultation to team.
- * Tameside: High HbA1c 'tool' (based on MI principles), focus on trying to gain holistic view of why sugars are high and patient-centred decision re: what support they'd find helpful (in theory!!)
- * South Manchester: recently started psychology-led clinics to provide initial assessment (Solution Focussed booklet)

What's the evidence that Psychology input is effective?

- * - 2016 systematic review of interventions to improve outcomes for YP with T1. Concludes the effectiveness of interventions on clinical, behavioural and psychosocial outcomes among young adults is inconclusive. Evidence for the role of structured transition programmes.
- * - 2020 systematic review of psychological interventions to improve glycaemic control – no significant improvements found in 18 studies reviewed.
- * Diabetes UK 2010 document – Emotional and Psychological Support and Care in Diabetes Report - MI & CBT improved HBA1c.
- * Motivational interviewing seems to be most researched – evidence when used by trained prof can improve glycaemic control (Channon SJ et al. 2007)
- * - Dr Mann - Sunderland's audit of their pathway – (2015-17) fortnightly contact, clinic every 6 weeks. 62% of patients improved within 6 months to come off pathway (HBA1c <69) Essential factors – early contacts with team and access to Psychology (18% of data set received Psych).

What works?

- * Evidence for the role of structured transition programmes (multiple refs – Pyatak EA et al , 2017)
- * Language matters (2018)
- * Motivational interviewing(Channon SJ et al, 2007)
- * Solution focussed approaches – Ormskirk model
- * Parental support – focus on parental transfer of self management (Trudeau,B et al, 2019), using language that is collaborative and engaging
- * Persuasion and confrontation regarding risks of non-adherence was associated with poorer glycemic control and adherence (Caccavale LJ et al, 2019)

Ideas for discussion

- * How do your teams support CYP and families with high HbA1cs?
 - * How do you get involved?
 - * What terminology gets used?
- * Have you found things that ‘work’?
 - * Anecdotally?
 - * Research?
 - * Magic wand?!
- * Do you notice pushes/pulls from the different feelings in the system? How have you managed these?

References

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