

SUPPLEMENTARY DATA

Supplementary Appendix 1. The Confidence in Diabetes Self-care (CIDS) survey

In each item, circle the answer that best represents your knowledge in each aspect.

	I believe I can...	Yes, I am sure I can	Yes, I am quite sure I can	Yes, I think I can	No, I am quite sure I cannot	No, I am sure I cannot
1	Plan my meals and snacks according to dietary guidelines.	5	4	3	2	1
2	Check my blood glucose at least two times a day.	5	4	3	2	1
3	Perform the prescribed number of daily injections.	5	4	3	2	1
4	Adjust my insulin dose for exercise, traveling, or celebrations.	5	4	3	2	1
5	Adjust my insulin when I am sick.	5	4	3	2	1
6	Detect high levels of blood glucose in time to correct.	5	4	3	2	1
7	Detect low levels of blood glucose in time to correct.	5	4	3	2	1
8	Treat a high blood glucose correctly	5	4	3	2	1
9	Treat a low blood glucose correctly	5	4	3	2	1
10	Keep daily records of my blood glucose	5	4	3	2	1
11	Decide when it's necessary to contact my doctor or diabetes educator.	5	4	3	2	1
12	Ask my doctor questions about my treatment plan.	5	4	3	2	1

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13	Keep my blood glucose in the normal range when under stress	5	4	3	2	1
14	Check my feet for sores or blisters every day.	5	4	3	2	1
15	Ask my friends or relatives for help with my diabetes.	5	4	3	2	1
16	Inform colleagues/others of my diabetes, if needed	5	4	3	2	1
17	Keep my medical appointments	5	4	3	2	1
18	Exercise two to three times weekly.	5	4	3	2	1
19	Figure out what foods to eat when dining out.	5	4	3	2	1
20	Read and hear about diabetes complications without getting discouraged.	5	4	3	2	1

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Supplementary Appendix 2. Teaching plan created by Paediatric Diabetes service

Week 1 and 2

- Day 1: Do finger prick BG tests as before, i.e. before the 3 main meals and at bedtime.
- After day 1 to week 2:
- ✓ Scan before and 2 hours after a meal
- ✓ Enter carbs, insulin doses and/or exercise
- ✓ Adjust carb ratio, sensitivity/correction factor and basal rates/dose accordingly
- ✓ Record food diary and illness or stress

Week 2 (day 14)

- ✓ Download data at <https://www2.libreview.com/> or <https://www1.libreview.com/>
- ✓ Email report to Diabetes Nurse at childdm@kkh.com.sg
- ✓ Start telehealth either by video-consultation or phone consultation

Week 3 and 4 – Adjust insulin doses, food types and amounts based on the glucose trends and patterns

- ✓ Scan before and 2 hours after a meal
- ✓ Enter carbs, insulin doses and/or exercise
- ✓ Adjust carb ratio, sensitivity/correction factor and basal rates/dose accordingly
- ✓ Record food diary and illness or stress

Week 4 (day 28)

- ✓ Download data at **Error! Hyperlink reference not valid.**<https://www2.libreview.com/> or <https://www1.libreview.com/>
 - ✓ Email report to Diabetes Nurse at childdm@kkh.com.sg
- Start telehealth either by video-consultation or phone consultation

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Supplementary Appendix 3. Suggestions for patient selection and use of FGM (FreeStyle Libre)

<ul style="list-style-type: none"> • Requires no daily calibration; however, fingerstick testing may still be needed in certain situations (see Limitations) 	<ul style="list-style-type: none"> • Not indicated for children <18 years (US)
<ul style="list-style-type: none"> • Ease of use by the patient • Up to 14-day sensor wear (ex-U.S.) and up to 10 days in the U.S. version* 	<ul style="list-style-type: none"> • No data available for the first 12 h during warm-up period* • Does not have real-time sharing capabilities
<ul style="list-style-type: none"> • Can be used to dose insulin without confirmatory testing under most circumstances 	<ul style="list-style-type: none"> • Not recommended for those with hypoglycemia unawareness
<ul style="list-style-type: none"> • Results can be shared with clinician via LibreLink app (via Android phone only) • Can be used in children/adolescents 4–17 years (ex-U.S.) • Measures glucose 40–500 mg/dL 	<ul style="list-style-type: none"> • Does not provide alarms for current/impending glucose events • Is a “passive” system—data not transmitted continuously from sensor; results are available only when the sensor is scanned with a reading device (however, this may not be a limitation in less intensively managed patients not on insulin) • Full 24-h data can be captured and downloaded only if the sensor is scanned at least every 8 h
<ul style="list-style-type: none"> • Can be used in pregnancy (ex-U.S.) 	<ul style="list-style-type: none"> • Does not allow for “recalibration” or detection of poor individual sensor function
<ul style="list-style-type: none"> • No interference by acetaminophen 	<ul style="list-style-type: none"> • In the U.S., currently is indicated for adults only
<ul style="list-style-type: none"> • Lower cost than rtCGM systems • Medicare approved • Measures blood ketones with special test strips 	<ul style="list-style-type: none"> • Requires fingerstick confirmatory testing under the following conditions: <ul style="list-style-type: none"> - Hypoglycemia (≤ 70 mg/dL) - Impending hypoglycemia - Rapidly changing glucose - Symptoms of low or high blood glucose - 12-h warm-up period - When symptoms do not match system readings or when inaccurate readings are suspected • Accuracy in hypoglycemic and hyperglycemic ranges is suboptimal • Does not currently connect to insulin pumps or other platforms (e.g., smart pens, apps)

Adopted from Edelman, S.V., Argento, N.B., Pettus, J., and Hirsch, I.B. (2018). Clinical Implications of Real-time and Intermittently Scanned Continuous Glucose Monitoring. *Diabetes Care*, 41(11), 2265-2274. Retrieved from <https://doi.org/10.2337/dc18-1150>