

SYSTEM PROFILE

## CamAPS FX at a glance

**ICR**

**Primary optimisation lever**

Insulin-to-Carbohydrate Ratio (ICR). A weaker ICR shifts more insulin to algorithm-delivered basal - makes the system more aggressive.

REGISTRY TIR

**69.6%**

Boughton 2026

REGISTRY

**35,714**

real-world users

AGE

**1+**

widest paediatric

Ref: Tauschmann M et al. 2018 Lancet · Boughton CK 2026 · Biester T 2023 DPV · Pemberton & Uday 2026.

THE ESSENTIALS

- ✓ **YpsoPump + smartphone app.** Algorithm lives on your phone.
- ✓ **Cambridge pedigree.** Developed from one of the longest continuous AID research programmes globally.
- ✓ **Compatible CGMs:** FreeStyle Libre 3 / 3 Plus · Dexcom G6 / G7.
- ✓ **User-adjustable target** - typically 4.4-7.0 mmol/L range.
- ✓ **Continuous adaptive learning.** Algorithm adapts to your individual insulin needs over time.
- ✓ **Boost mode** - more aggressive for illness, growth, persistent highs, pregnancy.
- ✓ **Ease-off mode** - less aggressive for exercise, post-exercise, increased sensitivity.
- ✓ **Approved from age 1** - only AID system approved for very young children.

GNL CONFIGURATION FRAMEWORK · PEMBERTON & UDAY 2026

### Three tiers - pick the one that fits you

TIER	TARGET RANGE	ICR APPROACH	BASAL SPLIT
<b>Optimal</b>	4.4-5.5 mmol/L	Weaker ICR	65% algo / 35% user
<b>Balanced</b>	5.5-6.0 mmol/L	Moderate ICR	55% / 45%
<b>Protective</b>	6.7-7.0 mmol/L	Stronger ICR	45% / 55%

**ICR is the CamAPS lever.** Unlike Control-IQ (CF) or 780G (AIT), CamAPS responsiveness is driven by how much insulin the algorithm is allowed to deliver as basal vs your mealtime bolus. Weaker ICR = more algorithmic work.

BOOST & EASE-OFF · REAL-WORLD SAFETY

### Two tools for two situations

- ▶ **Boost.** Algorithm assumes ~35% higher insulin needs. For illness, growth surges, persistent hyperglycaemia, pregnancy. **0.0% time below 3.9 mmol/L** during Boost (vs 2.1% outside). Does not cause hypoglycaemia (Royston & Hovorka 2024, n=7,464).
- ▶ **Ease-off.** Reduces insulin delivery. For exercise, post-exercise risk, increased sensitivity. Counter-intuitively **reduces** hyperglycaemia during exercise - reflects the insulin-exercise interaction.

GETTING THE MOST FROM CAMAPS · PART 1

### Let the algorithm learn

CamAPS adapts to you continuously. The more consistent your bolusing and meal patterns, the more the algorithm learns.

- ▶ **First 2 weeks.** Let it stabilise before making settings changes.
- ▶ **Bolus before meals.** Even on an adaptive system, pre-meal insulin still matters.
- ▶ **Count carbs honestly.** The algorithm uses your input to model your response.
- ▶ **Don't under-bolus to make the algorithm work harder.** This creates bigger excursions, not better control.

PAEDIATRIC & PREGNANCY

### Where CamAPS shines

- ▶ **Age 1+.** Only AID approved this young. Widely used in toddlers and young children.
- ▶ **Caregiver use of Ease-off** most frequent - typically around nursery drop-off, playground, naps.
- ▶ **Pregnancy.** CamAPS has the strongest pregnancy evidence base of any AID - CONCEPT-T, AiDAPT trials.
- ▶ **Boost during pregnancy** enables safe tighter targets as insulin needs rise.

## MAJOR IN THE MAJORS · #1

**Three settings, most of the outcome**

- ▶ **Glucose target range.** 4.4-7.0 mmol/L. Tighter range = more aggressive algorithm.
- ▶ **Insulin-to-Carb Ratio (ICR).** The CamAPS primary lever. Weaker ICR → more basal-delivered insulin.
- ▶ **Basal / TDD.** Algorithm adapts around your programmed basal. Keep it close to reality.
- ▶ **Boost and Ease-off.** Use them - they're safe and effective.

## MAJOR IN THE MAJORS · #2

**Keeping the phone + pump + CGM talking**

- ▶ **App must stay open in background.** Force-closing stops the algorithm.
- ▶ **Battery optimisation off** for CamAPS app - OS might kill it otherwise.
- ▶ **Bluetooth between phone, pump, CGM.** Keep phone within range of both.
- ▶ **Ypsopump cartridge changes** - every 3 days max. Rotate sites as with any tubed pump.
- ▶ **Phone incompatible?** Check CamDiab supported devices list before buying a new phone.

## MAJOR IN THE MAJORS · #3

**Two actions that move HbA1c most**

The AID Optimiser models what ICR and target changes will do. Use it before you change anything.

**ACTION 1** **AID Algorithm Optimiser** →  
Model ICR and target changes for CamAPS FX. See expected TIR shift before you commit.

**ACTION 2** **Exercise Planning Explorer** →  
When to use Ease-off and for how long. Session-specific modelling.

## GO DEEPER

**GNL explorers, guides & podcasts**

Interactive tools, graded evidence and long-form reading when you want more than a leaflet.

**GUIDE** **Full AID Guide - 5-part series** →  
How every AID algorithm works, side by side.

**SYSTEM** **GNL CamAPS FX Page** →  
Deep dive - Cambridge MPC algorithm, registry data, pregnancy evidence.

**PODCAST** **AID Series - CamAPS episodes** →  
Cambridge team interviews, user experience, paediatric perspective.

**ASK** **Grace - evidence-backed Q&A** →  
Ask anything about CamAPS FX, AID or T1D.