Best practice guide: CSII - A guide for service requirements

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On behalf of ABCD DTN-UK CSII best practice working group

A guide for setting up and running insulin pump services

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INSULIN PUMP SERVICE REQUIREMENTS

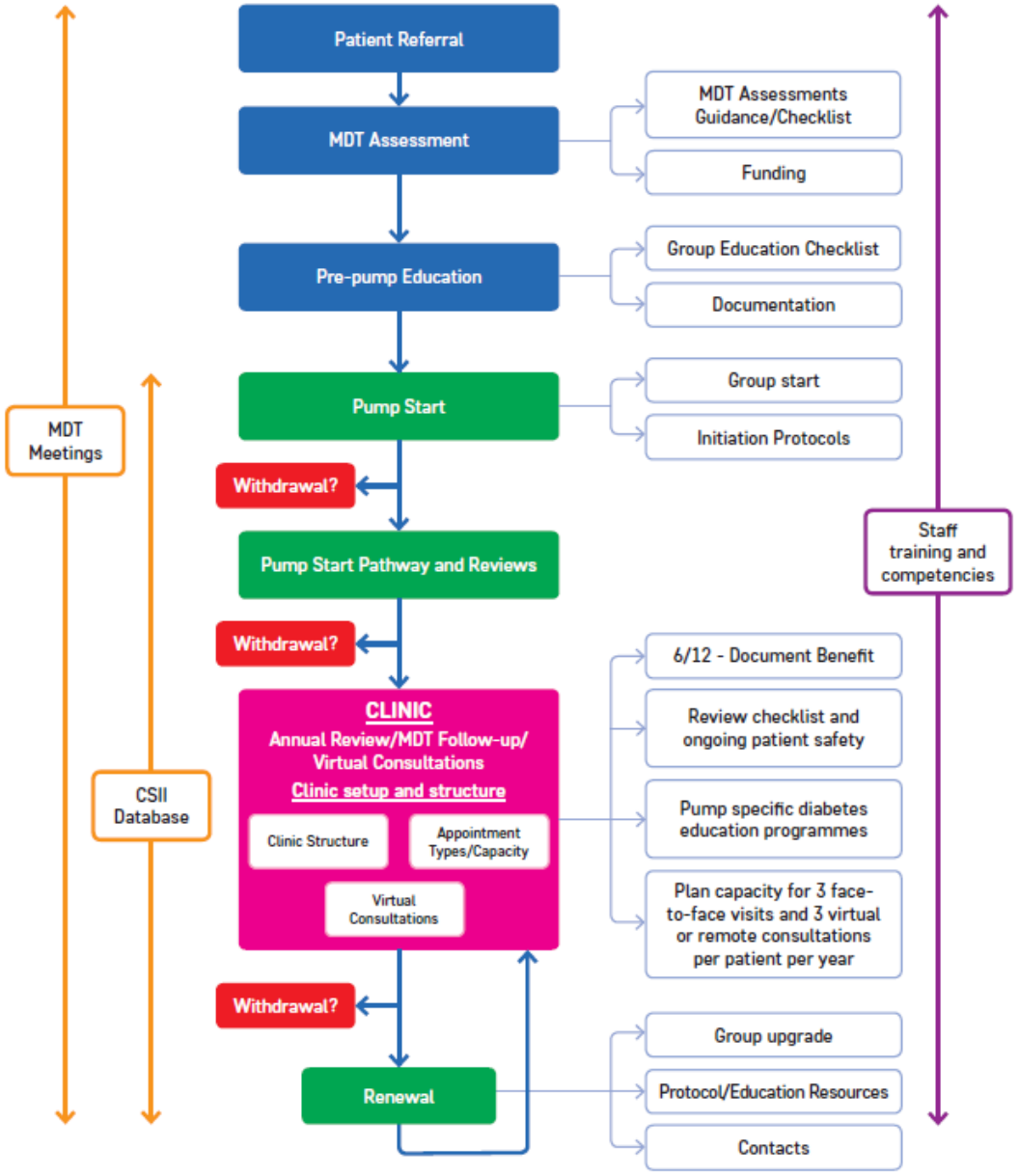
Here is a summary of the essential (E) and desirable (D) requirements for an adult insulin pump service based on consensus of the working group and taking into account variations in resources, skillset and staff:

Workforce (staff) requirements:	
• Dedicated consultant led multidisciplinary team trained in the use of pump therapy	(E)
• Psychology link via MDT	(E)
• Access to wider diabetes team e.g. podiatry, renal, ophthalmic, ante-natal services	(E)
• On-going staff training in diabetes technology	(E)
• Diabetes Coordinator /Technician/ Administrator	(D)
Organisation and capacity of pump service:	
• 30 min follow-up, 30 - 45 min new patient appointment slots for both consultant and educator (nurse / dietician) led clinics	(E)
• 15 min virtual clinic slots educator (nurse / dietician) clinics	(E)
• Capacity of at least 3 face-face appointments per pump user per year with extra provision for 3 virtual appointments per pump user per year	(E)
• Regular planned pump MDT meetings	(E)
• Rapid access facility	(E)
Pathway, protocols and programmes:	
• Access to type 1 diabetes specific education programmes	(E)
• MDT pathway for referral for consideration of pump therapy	(E)
• Insulin pump initiation and follow-up protocol	(E)
• Insulin pump renewal process	(E)
• Access to insulin pump specific education programmes	(E)
• Topic specific education groups*	(D)
• Fast track insulin pump initiation for select cases	(E)
• Out of hours clinical support pathway	(E)
• Peer support groups	(D)
• Protocols for in-patients	(E)
Informatics and data requirements:	
• Insulin pump / meter/ sensor download facility	(E)
• Pre-consultation download (e.g. via Diasend / Carelink)	(D)
• Pre-consultation patient questionnaire (see online appendix)	(D)
• Database to capture clinical and pump related information (see online appendix)	(E)
• Structured template for letters (see online appendix)	(D)
• IT infrastructure to enable virtual consultations (telephone, email, webcam)	(E)
Consultation and support tools:	
• Individual targets and holistic goals	(E)
• Structured review process in clinic (see online appendix)	(D)
• Guide to downloads and reviewing downloads for people with diabetes	(D)
• Point of care HbA1c testing	(D)
Funding agreements and contractual arrangement:	
• Access to several pump types	(D)
• Funding agreements in place for all patients fulfilling NICE criteria	(E)

* Topics include exercise, carb-counting refreshers, technology updates, advanced pump and sensor use, psychology and diabetes

CSII Patient Pathway

Figure 1: CSII Pathway



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• Diabetes Coordinator /Technician/ Administrator	(D)

Workforce requirements

The core multidisciplinary team (MDT) providing the pump service should include pump trained:

- Consultant diabetologist
- Diabetes specialist nurse*
- Diabetes specialist dietitian*
- Access to clinical psychology services with interest and experience of diabetes related issues. In addition to direct referrals, this should include case-discussions with an integrated member of the psychology team.

Diabetes Educator role

Competencies & Training

Organisation and Capacity

Organisation and capacity of pump service:	
• 30 min follow-up, 30 - 45 min new patient appointment slots for both consultant and educator (nurse / dietician) led clinics	(E)
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• Regular planned pump MDT meetings	(E)
• Rapid access facility	(E)

We would recommend the clinic bases capacity requirements on an average of 3 face - to - face visits per patient per year and 3 virtual or remote consultations per year.

Consultant led clinic models

	MODEL 1	MODEL 2*	MODEL 3*	MODEL 4*	MODEL 5*
	All patients seen simultaneously in a joint MDT appointment (doctor, nurse, dietician)	All patients seen by each member of the MDT individually and sequentially in a 1-stop shop fashion	Patients seen by one or more MDT team members at each appointment matched according to need	Mixture of MDT and single clinician appointments	Group diabetes educator sessions with individual scheduled appointments
Pro's	• Joined up thinking • MDT support for consultants • Good team learning • May not require post clinic meeting	• Clearly defined roles for each MDT member	• Efficient • Allows multiple short contacts • May allow second opinions and additional insights into care	• Enables MDT appointments and their advantages which are necessary for some patients • Gives flexibility and efficiency	• Patient peer support • Effective use of educator team time
Con's	• Resource heavy • Can be intimidating for the patient	• Longer visit time for patient who may feel overwhelmed by having 3 appointments in 1 session • Can result in unnecessary duplication	• Difficult to maintain relational continuity • Patient may not be triaged to appropriate MDT member • Post clinic MDT meeting required	• Patients need to be scheduled to the appropriate type of appointment in advance	• Personal matters difficult to discuss in group setting • Not all patients are supportive of having group appointments • Targeted reviews and education cannot be delivered
Suggestions	• Possibly more appropriate for teams starting a new pump service with small patient numbers	• Intra-clinic communication between team members needed to make this work well	• Matching correct MDT skills to correct patient may require pre-clinic triage process • All team members need to be able to function as diabetes educators and see pump patients independently	• Relies on a clinic list template to support the above	• Group sessions can be used as an adjunct to shorten appointment duration in MDT reviews • For reasons above they may not be a replacement for MDT reviews

* Post clinic meeting and capacity for brief 'ad-hoc' intra-clinic reviews or discussions essential

Clinical MDT Meetings

- Essential for discussing cases
- Ensure
  - Ongoing quality improvement accountability
  - Consistent working standards
  - Offer high level of expertise to all patients

Pathway, protocols and programmes

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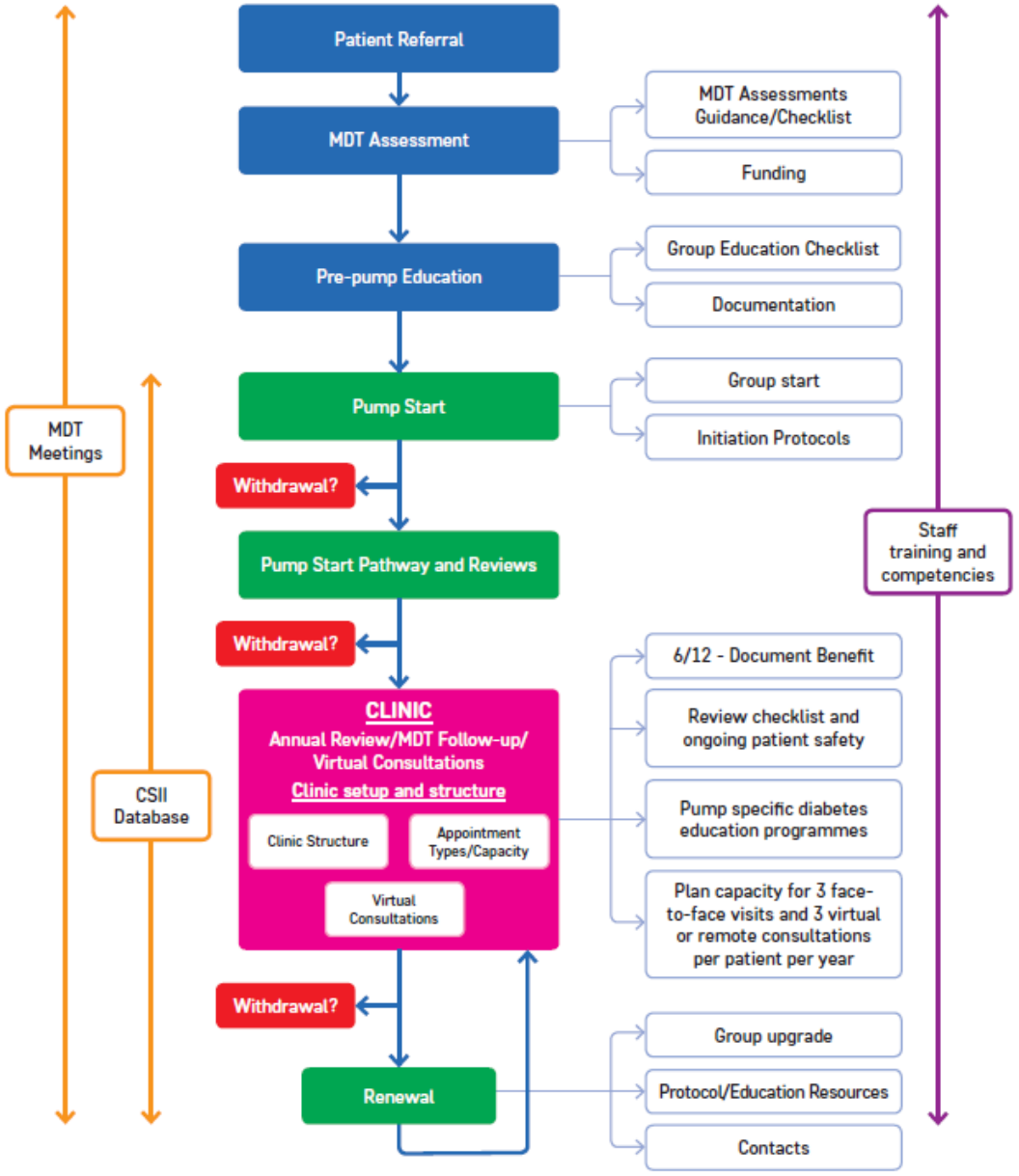
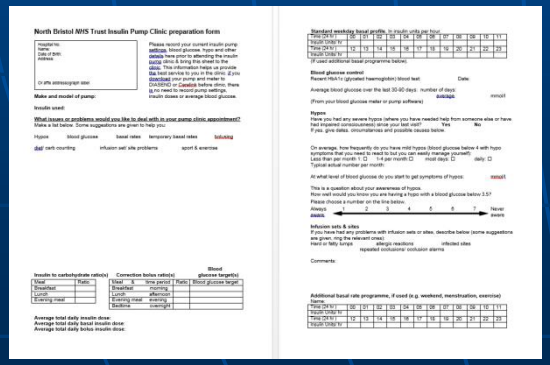


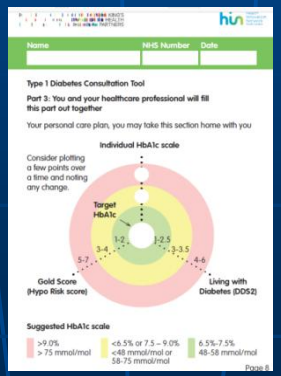
Informatics and Data requirements

Informatics and data requirements:	
• Insulin pump / meter/ sensor download facility	(E)
• Pre-consultation download (e.g. via Diasend / Carelink)	(D)
• Pre-consultation patient questionnaire (see online appendix)	(D)
• Database to capture clinical and pump related information (see online appendix)	(E)
• Structured template for letters (see online appendix)	(D)
• IT infrastructure to enable virtual consultations (telephone, email, webcam)	(E)

Data download

Access to software and IT infrastructure to download and display data from pumps, glucose meters and CGM devices in clinic is essential.


North Bristol NHS Trust Insulin Pump Clinic preparation form


Type 1 Diabetes Consultation Tool

Part 3: You and your healthcare professional will fill this part out together

Your personal care plan, you may take this section home with you

Individual HbA1c scale

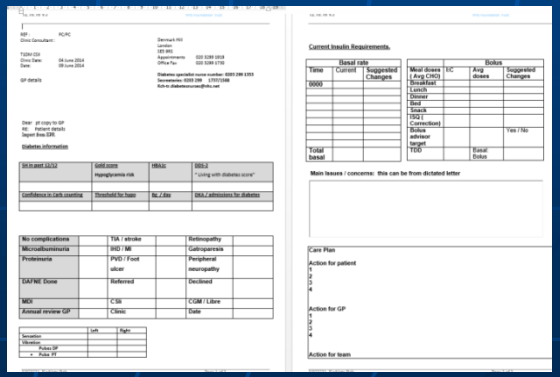
Consider plotting a few points over a time and noting any change.

Target HbA1c

Gold Score (Hypo Risk score)

Living with Diabetes (DDS2)

Suggested HbA1c scale


Current Insulin Requirements.

Main issues / concerns: this can be from dictated letter

Care Plan

Action for patient

Action for GP

Action for team

https://abcd.care/dtn/appendices-dtn-service-best-practice-guide

Remote consultations/ virtual clinics

- With diabetes educators
- Typically 15 mins
- Dedicated quiet clinic space, setup for telephone, webcam
- Data download facilities
- Document consultation in letter

Consultation & Support tools

Consultation and support tools:	
• Individual targets and holistic goals	(E)
• Structured review process in clinic (see online appendix)	(D)
• Guide to downloads and reviewing downloads for people with diabetes	(D)
• Point of care HbA1c testing	(D)

Funding and contractual arrangement

Funding agreements and contractual arrangement:	
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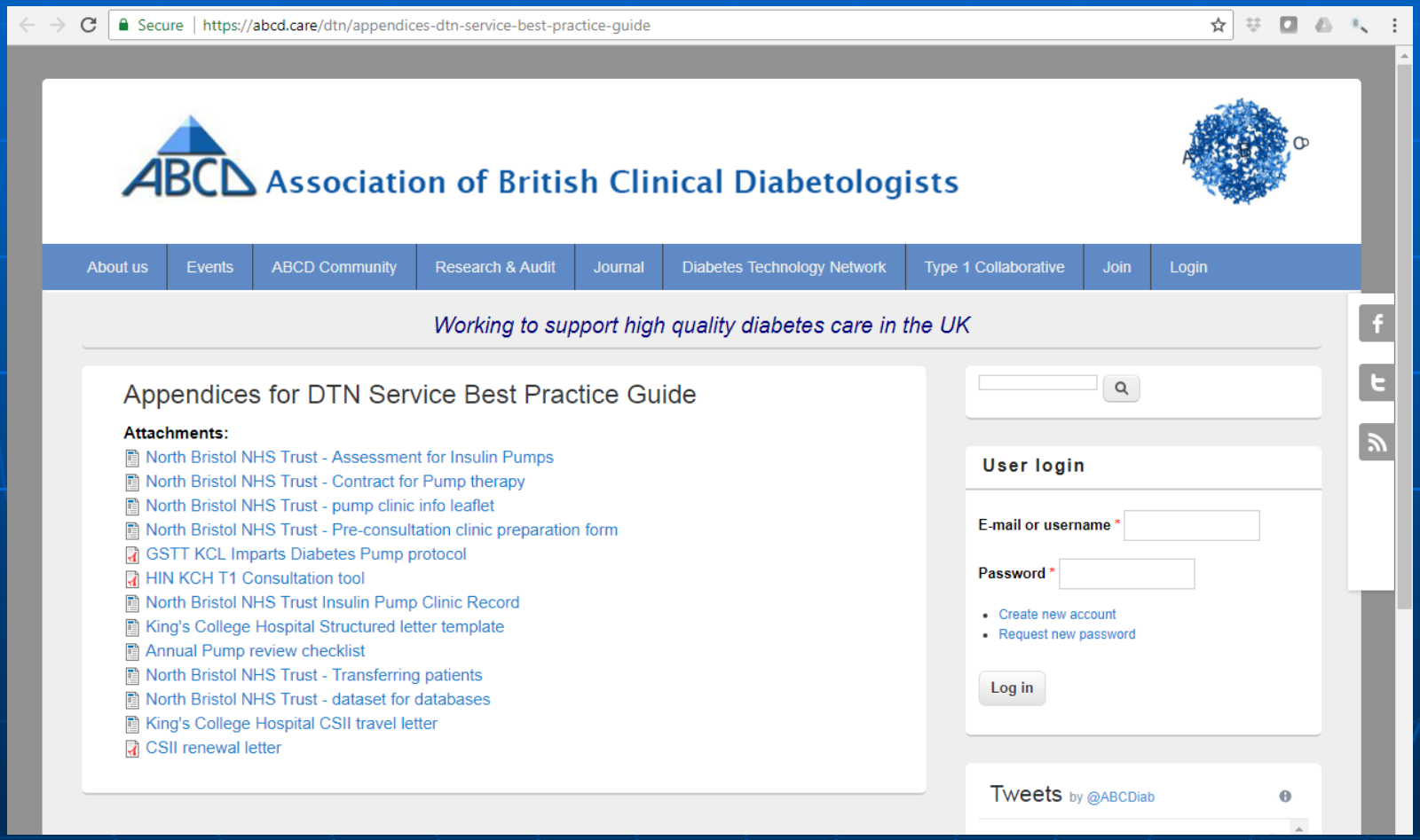
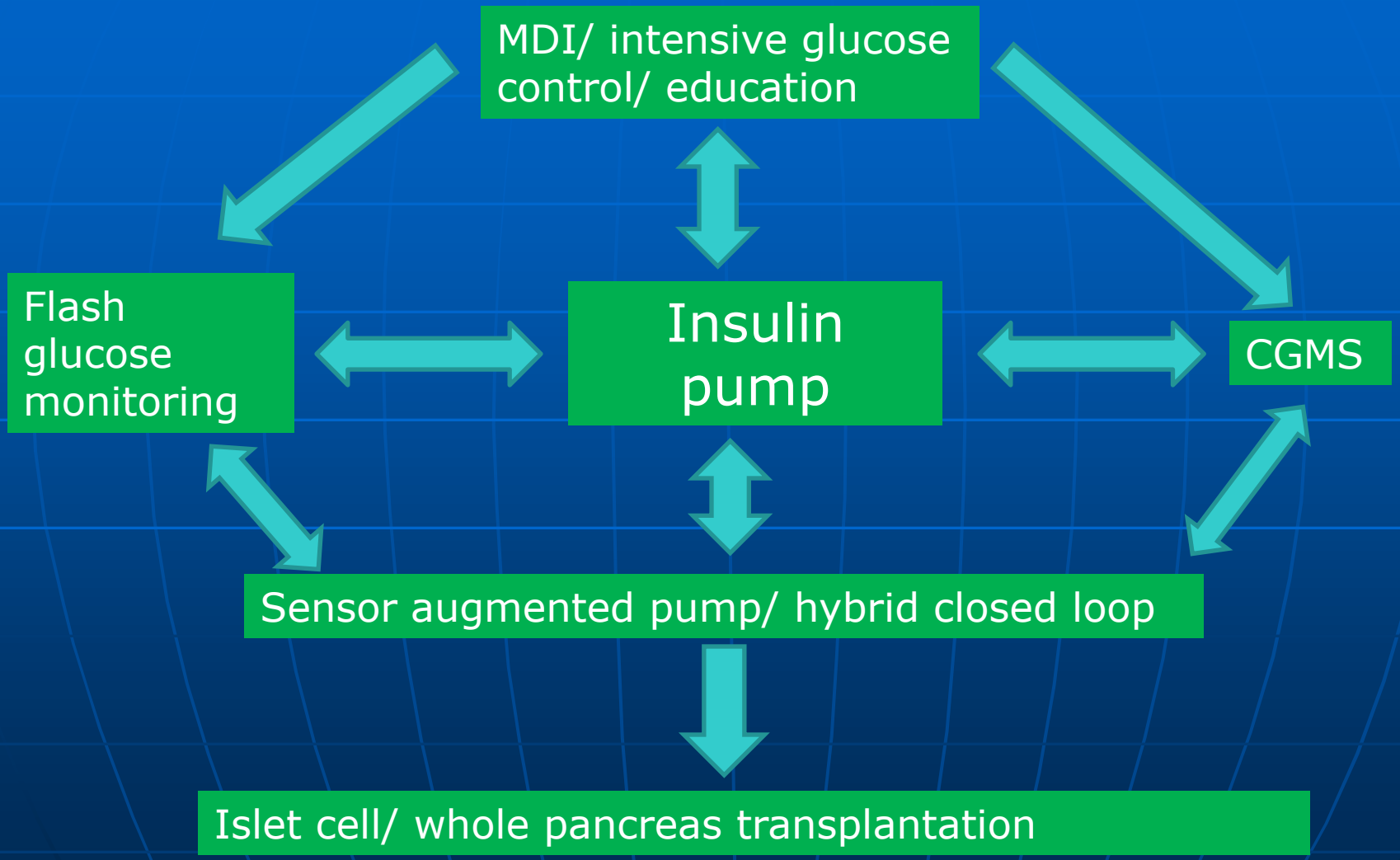


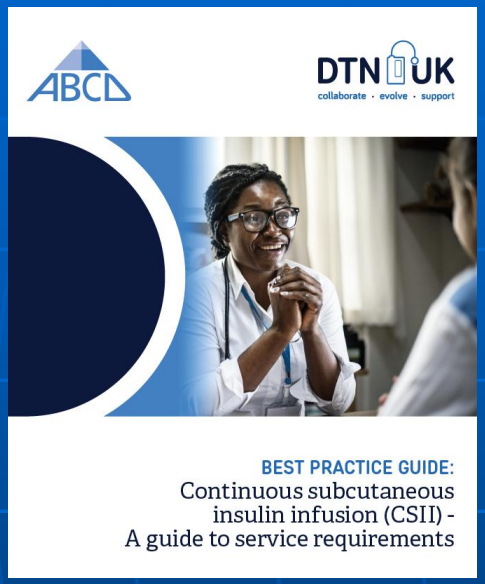
Recommendations for future work

- Competency framework for diabetes technology
- Minimum staffing levels, job roles and job planning

Pump service: embed within the type 1 diabetes service



Acknowledgements



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ABCD

DTN UK collaborate · evolve · support

Insulin Pumps Wales

INPUT supporting your access to diabetes technology

Diabetes teams at King's College Hospital, North Bristol NHS Trust, Guy's and St Thomas' NHS Trust, Royal Bournemouth and Christchurch Hospital NHS Trust

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