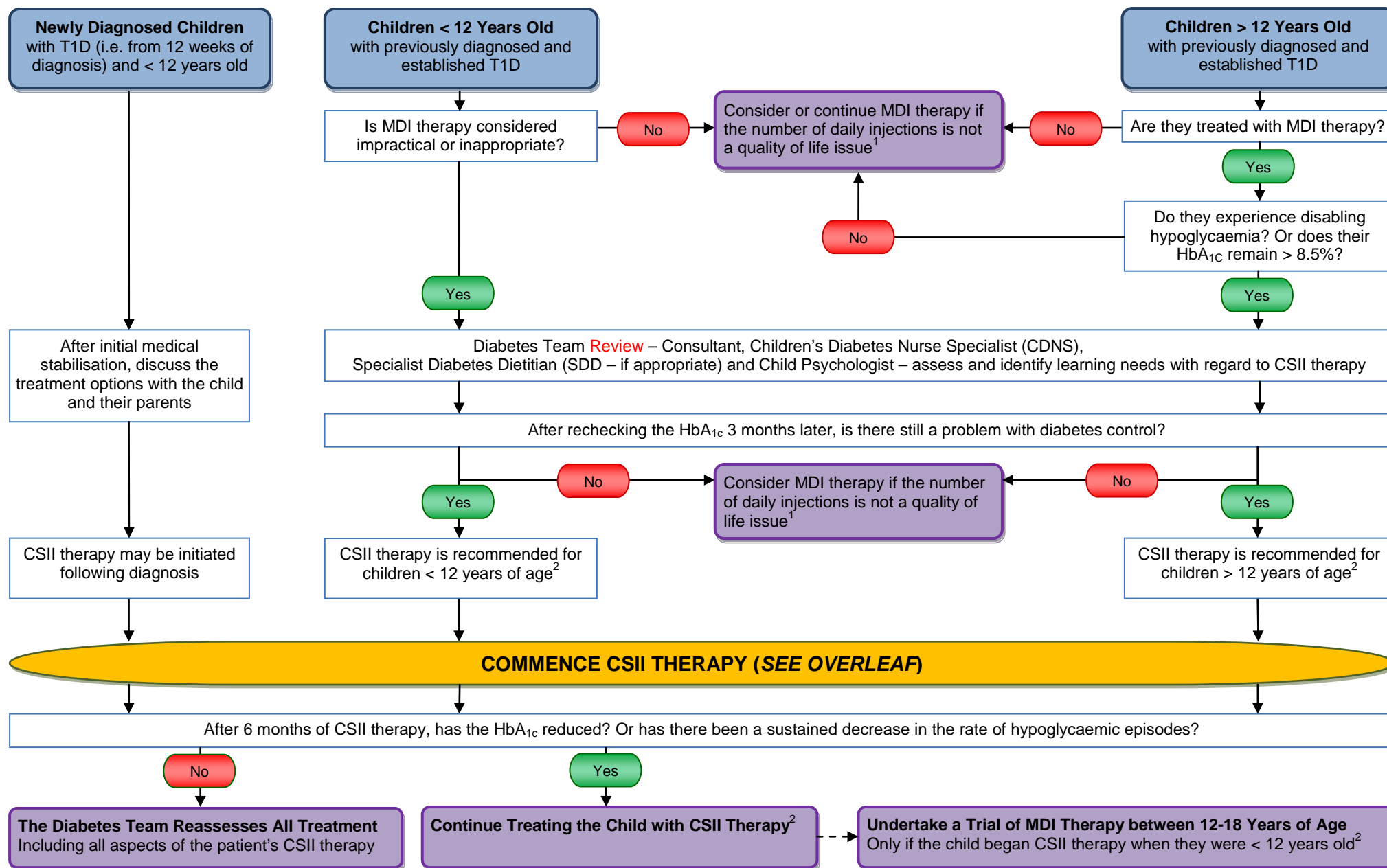


# Guidance for CSII Therapy for Children with Type 1 Diabetes (T1D)



# Commencing CSII Therapy for Children with Type 1 Diabetes

## 1 (40-60 mins) CDNS-Led Clinic FIRST VISIT

- Only initiate CSII therapy if patient and carer(s) are familiar with flexible insulin dosing or committed and competent in learning and using these skills<sup>2</sup>
- Agree advantages and disadvantages of CSII therapy with patient and carer(s)
- Discuss the need to secure funding (and possibility of being denied)
- Book a retinal photograph appointment (only if the child has had T1D for > 5 years)
- If HbA1c > 9%, lower the blood glucose levels over several weeks ??
- Consider continuous glucose monitoring

## 2 (40-60 mins) CDNS/ NON medical clinic NON-MEDICAL ASSESSMENT AND EDUCATION

- Full assessment of the patient's existing knowledge and self-management skills
- Psychological assessment (if possible)
- Dietary education
  - Review their knowledge of CHO-containing foods and ability to use and adjust insulin to CHO ratios
  - Review portion sizes and bolus ratio, and discuss potential bolus options
- CSII therapy education
  - Explain the terms "basal" and "bolus" and the time action profile of rapid acting insulin
  - Demonstrate all pumps and discuss advantages and disadvantages of each in relation to individual patient needs
  - Show the patient and carer(s) the e-buyers guide from PASA to inform their choice<sup>4</sup>
  - The patient decides which pump they like
  - Demonstration and opportunity to try different infusion sets (depending on patient's age, parents may try this first)
- Arrange a date for the "Saline Start" (Stage 3)
- If patient and carer(s) are committed to CSII therapy, and the Diabetes Team agree, pursue funding

## 3 (40-60 mins) CDNS-Led Clinic SALINE START

- The insulin pump is loaded with saline (for the patient and/or carer)
- Education and demonstration on:
  - How to load the battery
  - How to set the date and time
  - Button pressing
  - Practicalities of wearing the pump
- Arrange a date for the "Pump Start" (4-6 weeks' notice)
- The patient takes the pump home to practice button pressing and practical skills

## 4 (1-2 days) CDNS- DAY CASE PUMP START

- Education and demonstration on:
  - How to set up the pump
  - Setting the basal rate, temporary basal rate and principles of insulin adjustment
  - Bolusing, corrections and advanced options
  - Hypo- and hyperglycaemia management
  - Cannula insertion and care of the site
  - How to manage "sick day" rules
  - How to manage pump failure and how to revert to MDI if necessary
  - How to obtain supplies
- Discuss lifestyle issues such as alcohol, activity, eating out, travel and driving
- Provide an opportunity to reload the pump, prime, change the giving set and insert cannula
- The patient must check their blood glucose at least 4 times during the day, and at 2-3 am
  - Involve them in the analysis of the results to adjust doses as required
- Contact by telephone, email or text at least once a week to assess glycaemic control and the patient's coping skills

## 5 (40-60 mins) Consultant-Led Clinic FOLLOW UP (4 weeks after Pump Start)

- Review CSII therapy with patient:
  - Assess how the patient is coping with the pump
  - Review the original goals and agree further targets
  - Assess glycaemic control
  - Review basal rates and bolus ratios
  - Educate on the use of correction boluses
  - Educate on the advanced bolus options
  - Educate on the use of special features
- Provide an opportunity to review any or all aspects of CSII training
- Weekly consultation (telephone, email or text) if required

### References

1. National Collaborating Centre for Women's and Children's Health and the National Collaborating Centre for Chronic Conditions. *Type 1 diabetes: diagnosis and management of type 1 diabetes in children, young people and adults. Clinical guideline 15*. London: National Institute for Health and Clinical Excellence, 2004
2. National Institute for Health and Clinical Excellence. *NICE technology appraisal guidance 151. Continuous subcutaneous insulin infusion for the treatment of diabetes mellitus (review of technology appraisal guidance 57)*. London: National Institute for Health and Clinical Excellence, 2008
3. DH/ DUK (2007) *Insulin Pump Services: report of the Working Group*
4. [www.pasa.nhs.uk/pasa/Doc](http://www.pasa.nhs.uk/pasa/Doc)
5. [www.diabetes-education.net](http://www.diabetes-education.net)