



# Service evaluation of the “Ready Steady Go” transition programme in Type 1 diabetes in Southampton

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## Introduction

Transition is defined as the “planned purposeful movement of the adolescent from child-centered to adult orientated care”. It has been shown to be a difficult time for adolescents with Type 1 diabetes (T1DM) leading to poor long-term outcomes including decreased clinic attendance, poor glycaemic control and increased diabetes related hospital admissions (DRHAs). The implementation of transition programmes like “ReadySteadyGo” at University Hospital Southampton (UHS) aim to improve care and consequently long-term outcomes for patients. The main aim of this study was to determine whether the implementation of a structured transition programme according to national recommendations could improve long term outcomes for young people with T1DM.

## Methods

The cohort consisted of patients transitioned from paediatrics at UHS during 2011-2014, aged 17-19yrs at transition (n=74).

- Group 1 transitioned during 2011 (n=25) receiving no structured transition: Group 2 transitioned during 2012 and onwards (n=49) and received a structured transition programme, “Go”.
- Data was collected from 2 years before transition to 2 years after transition and averages were taken of most outcome measures in order to compare before and after transition.
- All data was collected by electronic and paper case notes review of paediatric and young adult outpatient clinics and UHS admissions.
- GP’s were contacted to attain psychosocial data but most denied access to records despite appropriate ethical approval.
- Statistical analysis was completed using SPSS version 18.
- Data was evaluated as a cohort, in transition groups (1 & 2) and in groups based on glycaemic control and attendance before transition.

## Results

- Average HbA1c in cohort = 9.6% (SD 2.1) before transition. This was poor compared to average for clinic (1% higher). After transition average HbA1c rose to 10.1% (SD 2.4).
- Biggest difference in HbA1c was seen between 1 year before and 1 year after transition: 9.4%(SD 2.0) vs 10.1%(SD 2.4), p<0.05
- HbA1c came down again between 1 and 2 years after transition: 9.7%(SD 2.6) vs 9.1%(SD 1.6), p = 0.081
- No statistically significant difference in HbA1c or clinic attendance between Group 1 and Group 2 before and after transition.

**Fig 1. Attendance at outpatient clinics before and after transition in cohort.**

Outpatient appointments	2 years pre transition (SD)	2 years post transition (SD)	P value
Number attended	6.4 (3.0)	4.2 (2.5)	P<0.001
Number offered	13.0 (6.2)	5.7 (3.2)	p<0.001
Percentage attended	<b>51.3 (18.0)</b>	<b>73.7 (26.7)</b>	<b>p&lt;0.001</b>

**Fig 2. Diabetes related hospital admissions in patients with and without input from “Go”.**

Mean number of DRHAs per patient	Cohort	Structured transition (n=33)	No structured transition (n=23)
In the 2 years before transition	0.64	0.67	0.61
In the 2 years after transition	0.68	0.45	1.01
P value	>0.1	0.08	0.1

Number of DRHAs after transition significantly correlated with HbA1c before transition (p=0.04), HbA1c after transition (p=0.04) and percentage of missed appointments after transition (p=0.017)

**Fig 3. Documented conversations about key issues for young diabetics before and after implementation of “Go”.**

Conversation	Frequency of documented conversation with no structured transition.	Frequency of documented conversation with input from “Go”
Contraception (female only)	46%	79% (chi squared test p<0.05)
Alcohol	75%	84%
Driving Regulations	71%	80%
Smoking	41.7%	55.1%
Adult Services and transition	71%	73%
Diabetic complications	42%	57%
Transition paperwork in notes	0%	47%

## Conclusions

This study collected baseline data after introduction of a structured transition programme from 16yrs of age (Go).

- The biggest change in HbA1c was seen 1 year before and 1 year after transition with HbA1c falling to near pre-transition levels 2 years after transition.
- DRHAs were associated with poor control and reduced outpatient clinic attendance over the transition period but the introduction of structured transition had a positive effect on DRHAs.
- Input from “Go” also had a positive impact on documented important conversations especially around contraception in girls.
- Clinic attendance was poor in 16-18 year olds pre-transition.
- UHS paediatric diabetes services are now in line with national transition guidelines.

This service evaluation suggests that self-efficacy training and transition programmes need to be implemented at an earlier age in order to try to improve outcomes for young people with Type 1 diabetes. Plans to introduce “ReadySteadyGo” from 11 years old at UHS aim to combat this. Reassessment of the “ReadySteadyGo” programme implemented from 11 years will be required.

## References

- Southampton Children’s Hospital. *Transition to adult care: Ready Steady Go*.  
NICE. *Type 1 diabetes: Diagnosis and management of type 1 diabetes in children, young people and adults*. NICE. 2004.  
Department of Health, Diabetes UK. *Best Practice for commissioning diabetes services: An integrated care framework*. Department of Health. 2012.