

Implementation of Effective Transition from Pediatric to Adult Diabetes Care with an Outpatient Transition Nurse

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Background

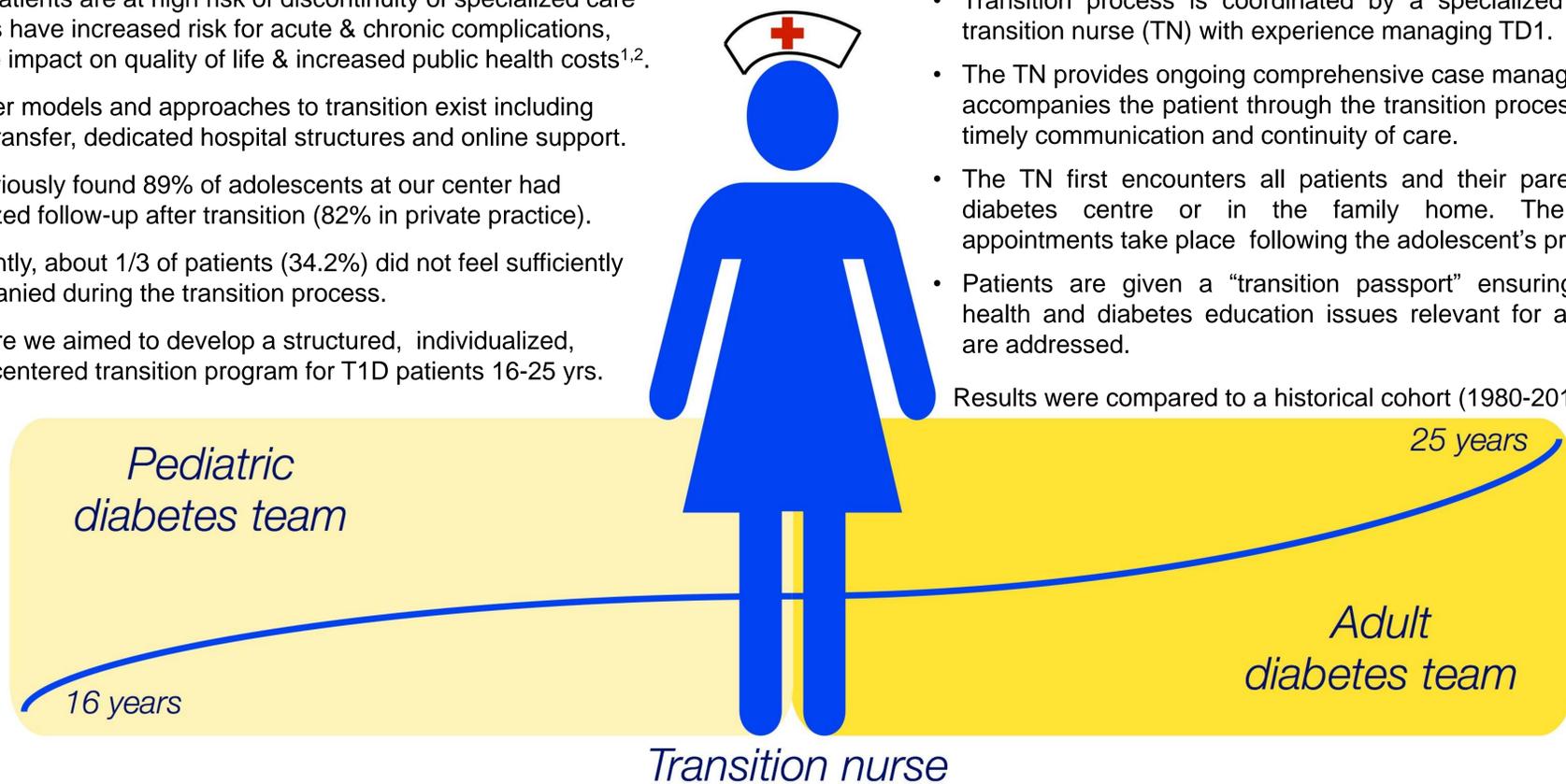
- Healthcare providers are challenged to manage the transition of adolescents with Type 1 Diabetes (T1D) from paediatric to adult care.
- These patients are at high risk of discontinuity of specialized care and thus have increased risk for acute & chronic complications, negative impact on quality of life & increased public health costs^{1,2}.
- A number models and approaches to transition exist including simple transfer, dedicated hospital structures and online support.
- We previously found 89% of adolescents at our center had specialized follow-up after transition (82% in private practice).
- Importantly, about 1/3 of patients (34.2%) did not feel sufficiently accompanied during the transition process.
- Therefore we aimed to develop a structured, individualized, patient-centered transition program for T1D patients 16-25 yrs.

Methods

The structured transition program was developed in collaboration with paediatric and adult diabetologists, nursing and the public health service.

- Transition process is coordinated by a specialized outpatient transition nurse (TN) with experience managing TD1.
- The TN provides ongoing comprehensive case management and accompanies the patient through the transition process ensuring timely communication and continuity of care.
- The TN first encounters all patients and their parents at the diabetes centre or in the family home. The following appointments take place following the adolescent's preferences.
- Patients are given a "transition passport" ensuring that key health and diabetes education issues relevant for adolescents are addressed.

Results were compared to a historical cohort (1980-2010).



Results

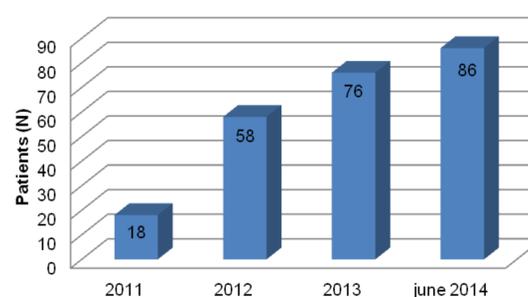
Patient characteristics at transition

	Historical group (1980-2010) (n=39) median (range)	Transition model (2011-2014) (n=64) median (range)
Age at study questionnaire (years)	23.0 (17 – 31)	20.2 (14.8-23.6)
Female / male (%)	60 / 40	39 / 61
Age at transition (years)	17.8 (13.3 – 19.3)	18 (10 – 20)
Diabetes duration (years)	8.1 (2.1 – 14.8)	8.0 (2 – 19)
Insulin dose (U/kg/day)	0.98 (0.54 – 1.33)	0.93 (0.35 – 1.39)
HbA1c (%)	8.6 (7.0 – 13.5)	8.35 (6.5 – 15.2)
Therapy		
conventional (%)	56	5
basal-bolus (%)	34	83
pump (%)	10	12
Nurse contacts (total/patient)	4.1 (0-31)	9 (2-59)
Informed about transition (%)	66.4	100
Felt well accompanied (%)	65.8	100 (N=7)

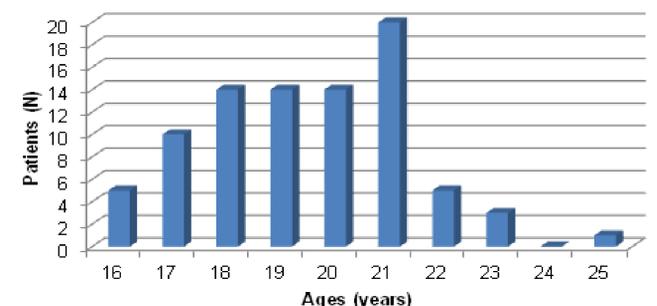
Historical group, n=39 (1980-2010):

39/173 (22.5%) eligible patients responded to the survey

Patients entered into transition model



Age of patients followed in the transition clinic



Structured transition group, n=64 (2011-present):

- TN consultations (visits, phone calls, SMS):** n=110 in 2013; n=59 through 1st semester 2014 → total of 2-59 nurse contacts/patient depending on individual need
- Continuity of care:** 64 (100%) patients transitioned to an adult diabetologist (75% private practice, 25% hospital-based), 1yr post-transition → 98% have ongoing care.
- Complications:** Successful home management by the TN prevented at least 3 hospital admissions (i.e. decompensated diabetes).

Discussion & Conclusions

- We report the successful implementation of a collaborative, structured transition program for adolescents with type 1 diabetes.
- Initial results are promising related to the effectiveness of nursing-led case management for facilitating continuity of care with 86 patients involved to date.
- The emphasis on providing patient-centered anticipatory guidance and psychological/motivational support to promote autonomy and self-management has been well-received by patients and families alike.
- Long-term follow-up is needed to fully evaluate health-related outcomes such as impact on acute and/or chronic complications as well as hospitalizations
- Cost-effectiveness analysis is ongoing.

References

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