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Introduction: Life expectancy is increasing worldwide, it is therefore essential to maintain functionality, improve quality of life and decrease incidence of complications. We evaluated efficacy and safety of sensor augmented insulin pump therapy (SAP) in older adults.

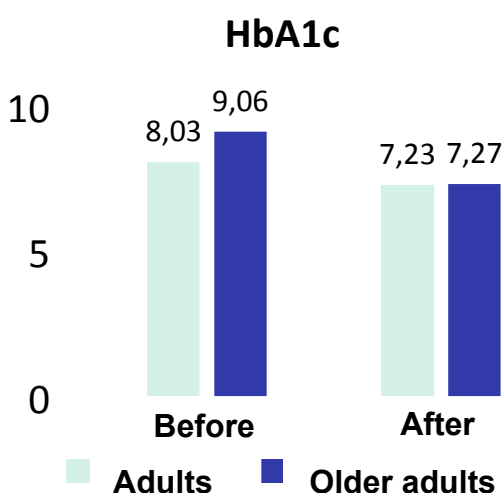
Methods: Before and after study. Patients with Type 1 and 2 diabetes mellitus (DM) with preserved basic functionality by Barthel index and clinically, evaluating capability of self-administration of insulin, carbohydrate counting and smartphone usage; Participants with adequate social network support and who had been using SAP for at least 3 months were included. Data was analyzed from a cohort of SAP users recruited from 2008 to 2014 at Diabetic Clinic of Hospital Universitario San Ignacio in Bogotá, Colombia, a tertiary level referral center. Efficacy was assessed with A1C and safety by frequency of hypoglycemia. There were also addressed body mass index, number of hospitalizations, severe hypoglycemia episodes and self-rated health (SRH).

Results: 50 patients were included, 26 were younger adults and 24 older adults (≥60 years), mean age was 38 and 69.7 years-of-age for younger and older adults respectively (table 1).

Table 1. Baseline characteristics

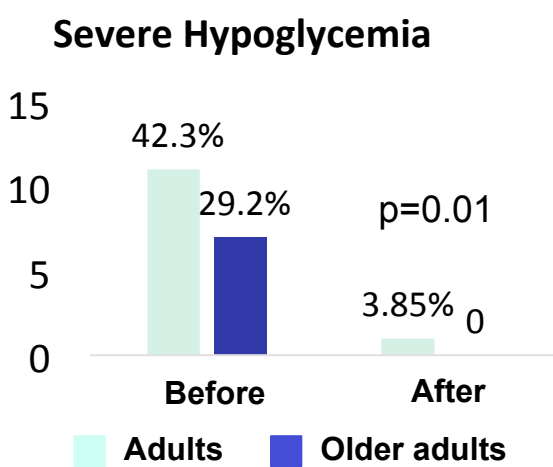
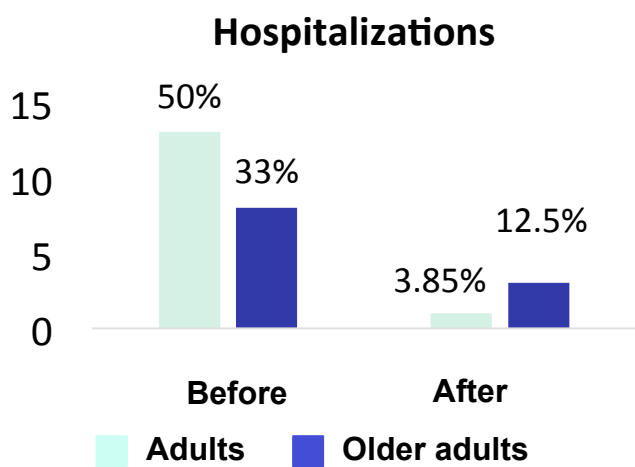
	adults n=26	Older adults n=24	Total
	n (%)	n (%)	n (%)
Male	15 (57.7)	14 (58.3)	29 (58)
Ages	38.08 ±12.9	69.7± 5.1	52.9 ± 19.2
T1D	22 (84.6)	10 (41.7)	32 (64)
T2D	4 (15.4)	14 (58.3)	18 (36)
Complications			
Microvascular	9 (34.6)	17 (70.8)	26 (52)
Macrovascular	1 (3.85)	5 (20.8)	6 (12)
Unawareness Hypoglycemia	15 (57.7)	17 (70.8)	32 (64)
Severe Hypoglycemia	11 (42.3)	7 (29.2)	18 (36)
Previous treatment MDI	26	24	50

Figure 1. Primary outcome



58.3% of older adults had Type 2 DM and after SAP, A1c (9.06±1.69 vs. 7.27±0.87) (figure 1), number of hospitalizations (12.5% vs 33%) and severe hypoglycemia (66.67% vs. 0%) significantly decreased (figure 2) and a significant improvement of SPH was found (46.08±24.30 vs. 82.69±18.86) (p<0.05) (figure 2). No statistically significant differences were found in A1C comparing older and younger adults.

Figure 2. Secondary outcomes



Conclusions: Integrated systems in Older Adults led to a significant decrease in A1c and severe hypoglycemia episodes.