



FLASH GLUCOSE MONITORING SYSTEM VERSUS BLOOD SUGAR TEST STRIPS: COST COMPARISON AND SATISFACTION DURING A YEAR IN A NORTHERN SPAIN REGION

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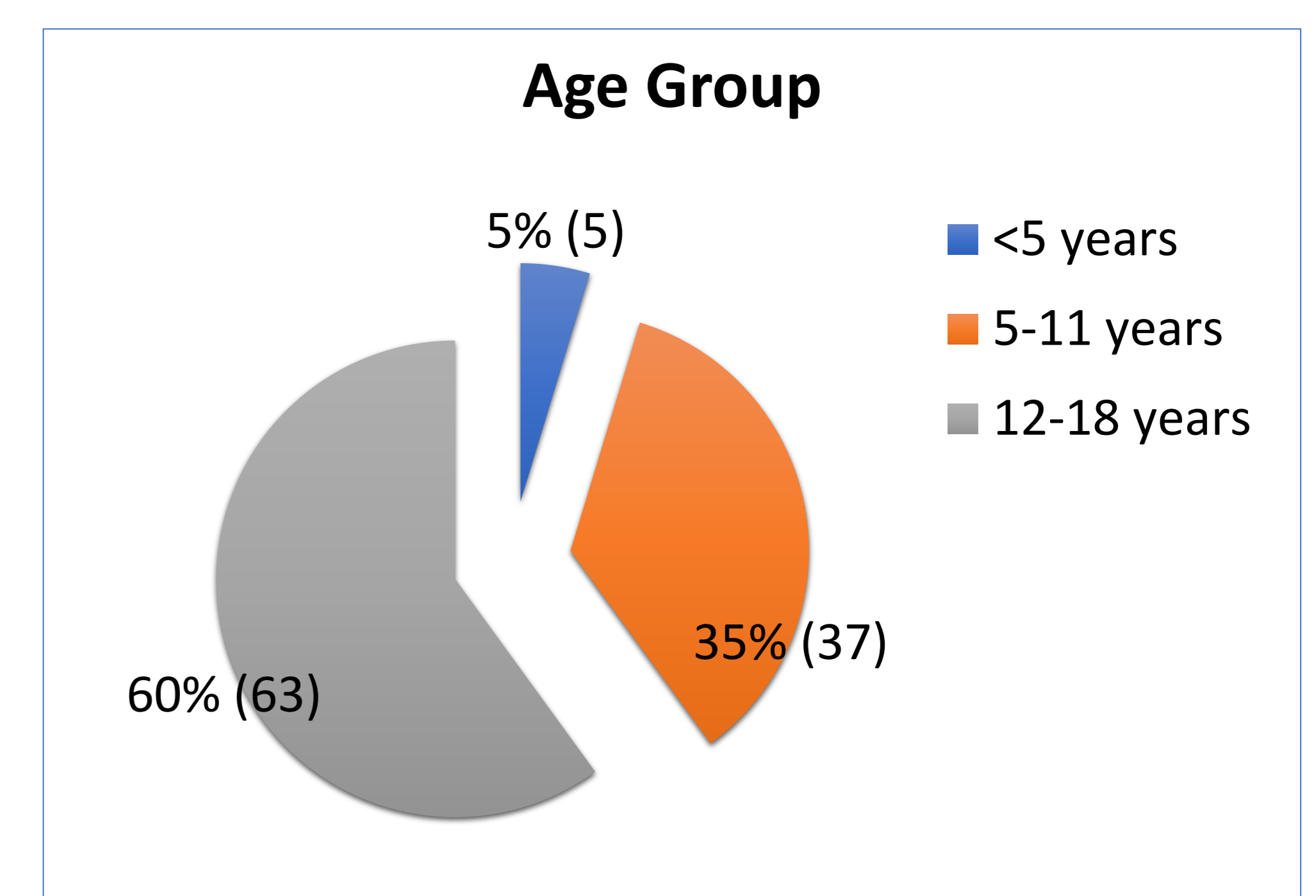
Background: The flash glucose monitoring system (FGMS) has been a great advance in quality of life for patients diagnosed with type 1 diabetes (T1D). However, it is a more expensive method.

Objectives: To describe the characteristics of the pediatric population (<18 years) diagnosed with T1D using FGMS, during one year in our community. To assess the degree of satisfaction and possible inconveniences. To evaluate the economic cost compared with test strips.

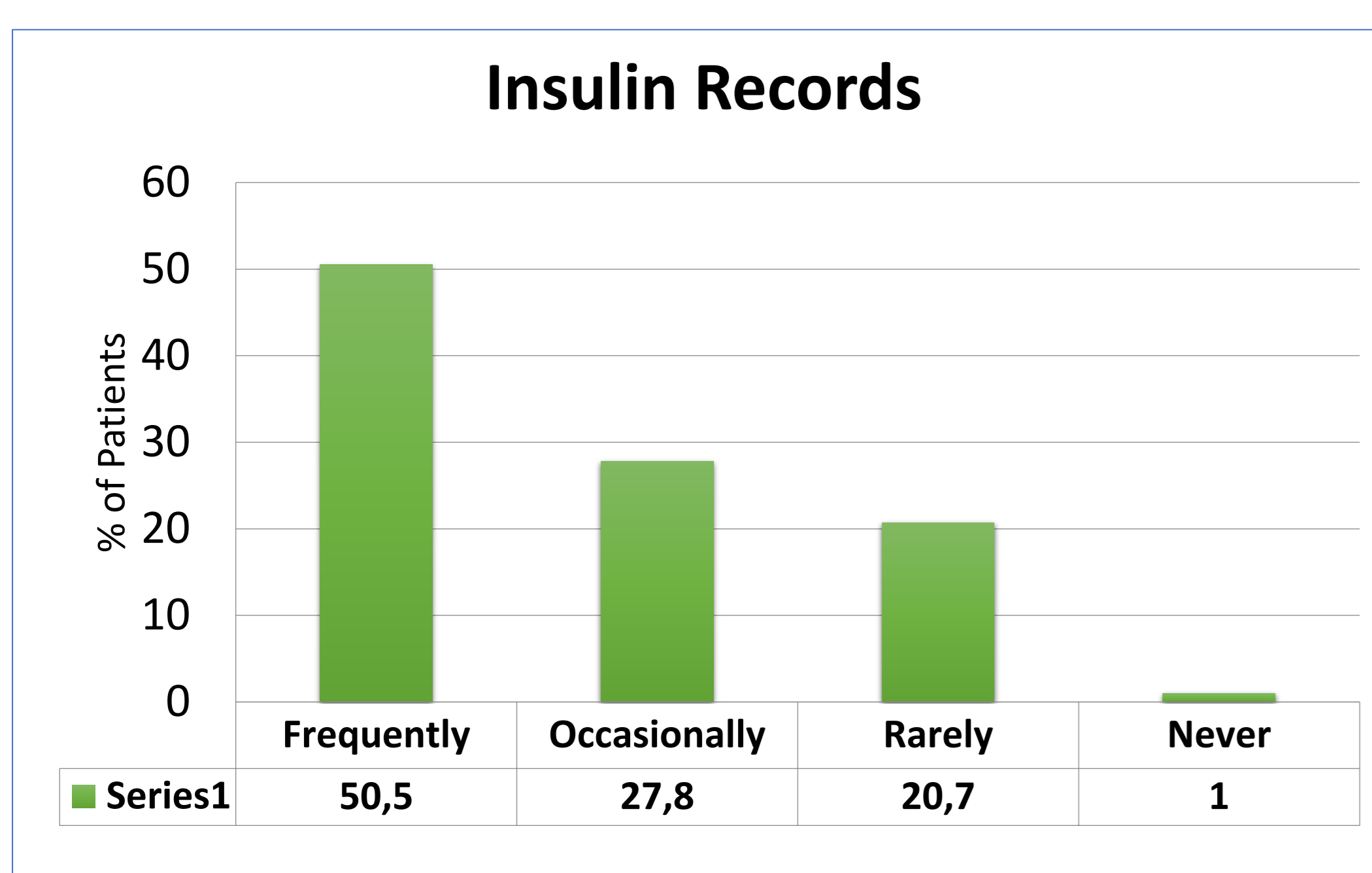
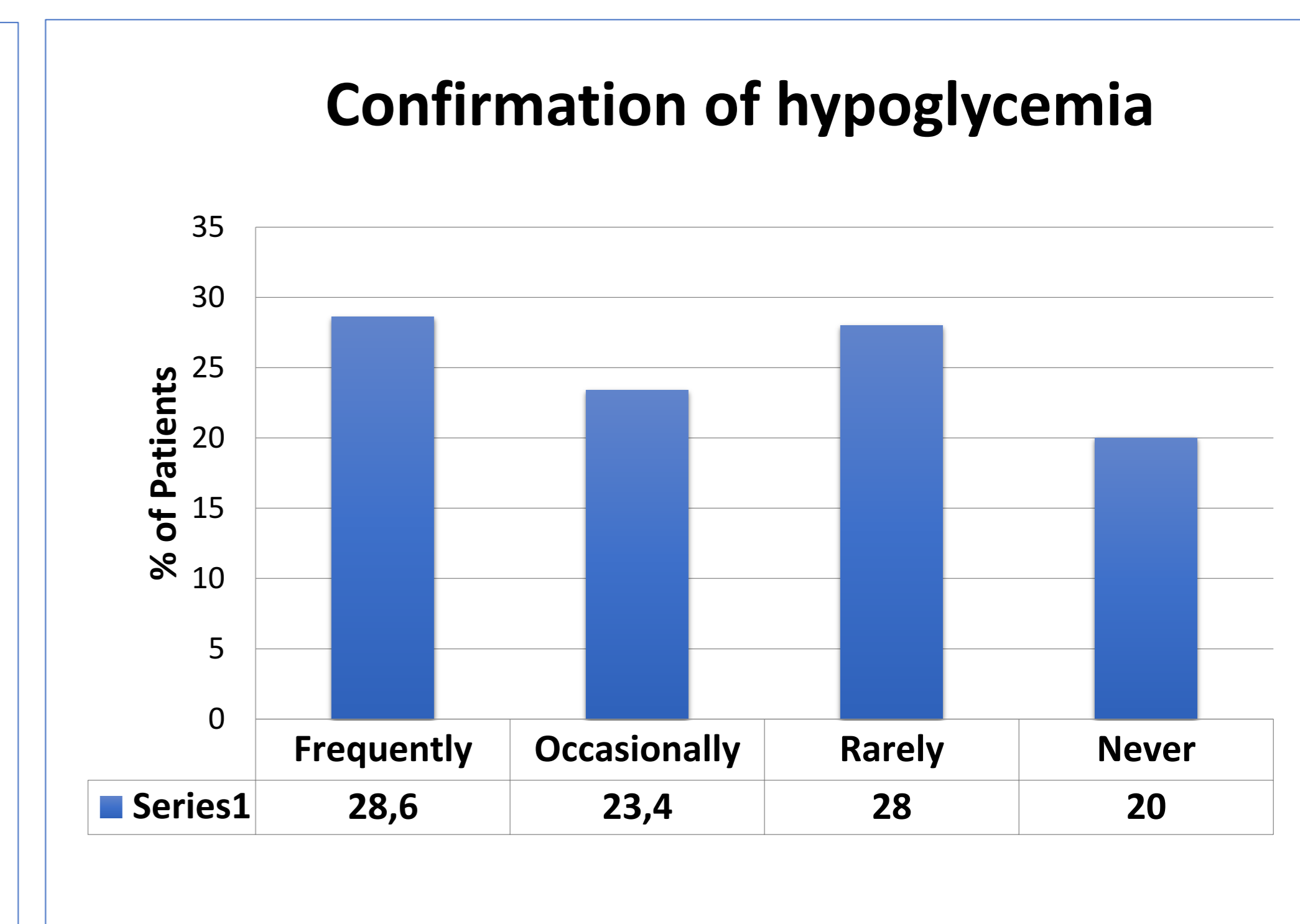
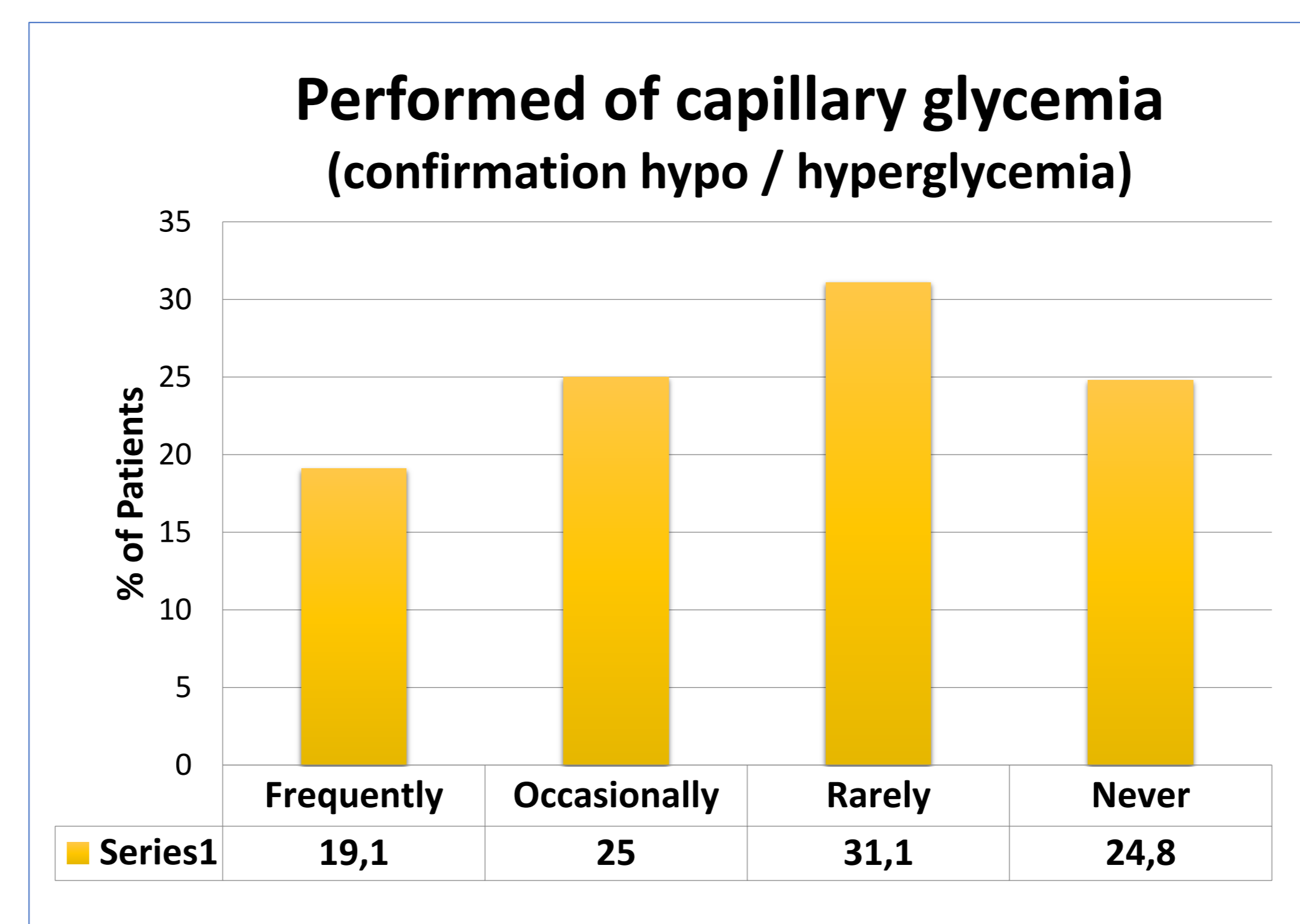
Methods: Medical records retrospective study between 01-02-2018 and 31-01-2019. Statistical analysis with SPSS v.24

Results:

- The number of patients under 18 years who were followed up by T1D was 127 (63 male and 64 female).
- In our community, FGMS is covered by the public health system.
- Four were excluded due to the use of other CGMS, all under 5 years old.
- Other 18 patients (10 male and 8 female), because they preferred traditional method of monitoring (test strips):
 - Reasons: 16 for esthetic reasons, 1 because of break away and another for contact reaction to the adhesive.
 - 14 of the group of 12-18 years, and 2 of the group of 5-11 years.
- Therefore, the sample consisted of 105 patients using FGMS: 26 of them, from the moment of diagnosis.



- The mean age at the moment of study was 12.5 ±3.9 years
- The time of evolution of T1D was 4.8 ±3.6 years.
- The mean age at the beginning of FGMS was 11.3 ±3.9 years.
- At the time of the start of financing by the public health system, 37.1%(39) already used this system through self-financing.



- Degree of satisfaction:** high in 86.6%(91).
- Problems:**
 - 86.6% did not present any problems
 - 11.4%(12) break away
 - 2%(2) contact dermatitis
 - No serious adverse event attributable to the use of this technology was recorded.

- The economic cost during the period was about 133.685,55 euros (105 patients with flash system and 18 traditional system).
- Assuming an mean use of 6 test strips per day, with capillary glycemia, the expense would have corresponded approximately to 44.446,05 euros.

Discussion: Although the systematic use of FGMS implies a significant increase in public spending, the high degree of satisfaction with few problems would justify its financing by public health system.

