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## The influence of glycated hemoglobin in a study comparing patients who required hospitalization or not

**Beatriz Dal Santo Francisco Bonamichi**

Hospital Irmandade Santa Casa de São Paulo, Brazil

**Introduction:** The glycated hemoglobin (HbA1c) has a key role in monitoring of glycemic control for reporting the retrospective index of plasma glucose. Studies show that HbA1c can serve as a parameter for risk evolution to DM complications, but little is known of statistical data in relation to the prognosis of other pathologies.

**Objective:** The objective is to analyze the HbA1c as prognostic and predictive marker for necessity of hospitalization in patients with other diseases.

**Method:** The study was performed in a hospital having a solicitation protocol of HbA1c for all patients with hyperglycemia in the moment of hospitalization. The study carried out in the five years period HbA1c analyzes by HPLC method, outpatient and hospitalized for clinical pathologies unrelated to DM patients. Parameters were set to analyze glycosylated hemoglobin equal to or less than 6.9%, 7 to 9%, and greater than 9%. Statistical differences were considered significant at  $p < 0.05$ .

**Results:** Evaluated a total of HbA1c in 2433 patients who hospitalization required and 48,164 outpatients in a period of five years. We found greater adherence to the solicitation protocol HbA1c up to date, starting with 300 requests until the last year with 656. The median of HbA1c in the first group were: less than or equal to 6.9%: 57% of patients, between 7-9%: 25.55% and higher than 9%: 17.02%. In outpatients were: less than or equal to 6.9%: 90.58% of patients, between 7-9%: 7.72%, higher than 9%: 1.70%.

**Discussion:** The Diabetes Control and Complications Trial (DCCT) and United Kingdom Prospective Diabetes Study (UKPDS), determined the use of HbA1c as a laboratory parameter for DM control. In our study, the HbA1c showed significant importance in relation to patients requiring hospitalization or not, demonstrating that can also be used as an independent prognostic tool of the patient's pathology.

**Conclusion:** Patients with high HbA1c have greater need for hospitalization regardless of pathology, having this method as an important marker prognostic of need for hospitalization.

### Biography

Beatriz Dal Santo Francisco Bonamichi is pursuing her PhD at the Hospital Irmandade Santa Casa de São Paulo, in Brazil, and simultaneously doing part of her research at Joslin Center Diabetes. She is an Endocrinologist at Hospital Samaritano, Researcher at Endoclinica, and has presented a few papers at many congresses, as well as has been awarded.

[biafran@hotmail.com](mailto:biafran@hotmail.com)

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