

Diabetes in Costa Rica

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Costa Rica

- **Costa Rica is located in Central America North of the Equator**
- **Costa Rica is real small, it covers only 0.03% of the surface of the Globe (aprox 52,000 sq Km)**
- **But it proudly shelters >5% of the biodiversity of the entire World**

Costa Rica

- **About 26% of the country is composed of conservation and natural protected territory**
- **Costa Rica has the highest literacy rate of the Western Hemisphere and no army since 1948**

Costa Rica and Health Care

- **Costa Rica has positioned itself among the countries with the highest public healthcare development in the Americas**
- **The Costa Rican Social Security Service (CCSS) is a public service institution covering 100% of the residents (including non-Costa Ricans)**

Costa Rica and Health Care

- **Costa Rica is the country in Latin America with the highest life expectancy of close to 78 years**
- **Regarding mortality rate it is also in the top best with a rate of 10.7%**

Costa Ricans

- **The happiest people in the world live in Costa Rica and the nickname is “TICOS”**
- **TICOS are “Pura Vida”**



Costa Rica Diabetes Prevalence

Number of people with diabetes

● 20-39	32,930
● 40-59	102,030
● 60-79	83,860
● Female	101,410
● Males	117,400
● Undiagnosed	52,620

IDF Atlas 6th Edition, 2013



Glycemic control in diabetic patients from the Central Valley in Costa Rica

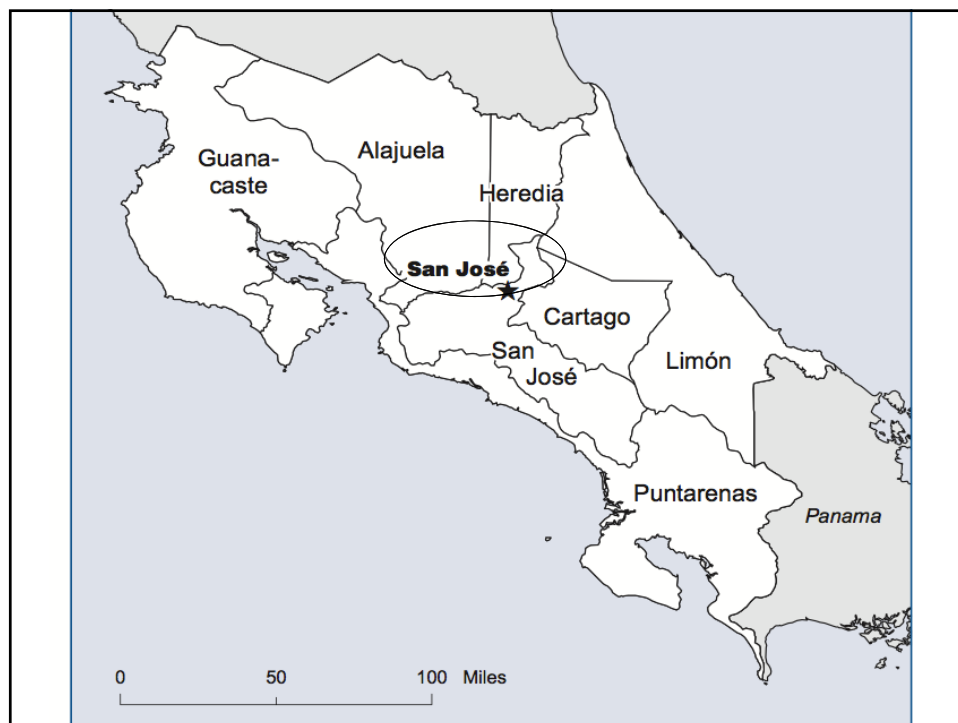
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Objective:

To analyze glycemic control as measured by HbA1c in diabetics from the Central Valley of Costa Rica during the first semester 2012.



Methods

–The patients are seen every three months by general doctors and HbA1c levels are measured twice a year.

–Data was obtained from diabetic patients attended in Out-Patient-Clinics from the Caja Costarricense de Seguro Social.

–Data was analyzed by gender, age and according to HbA1c levels.

Study Population

N: 16,437 (age 61.0 ± 12.5 yo)

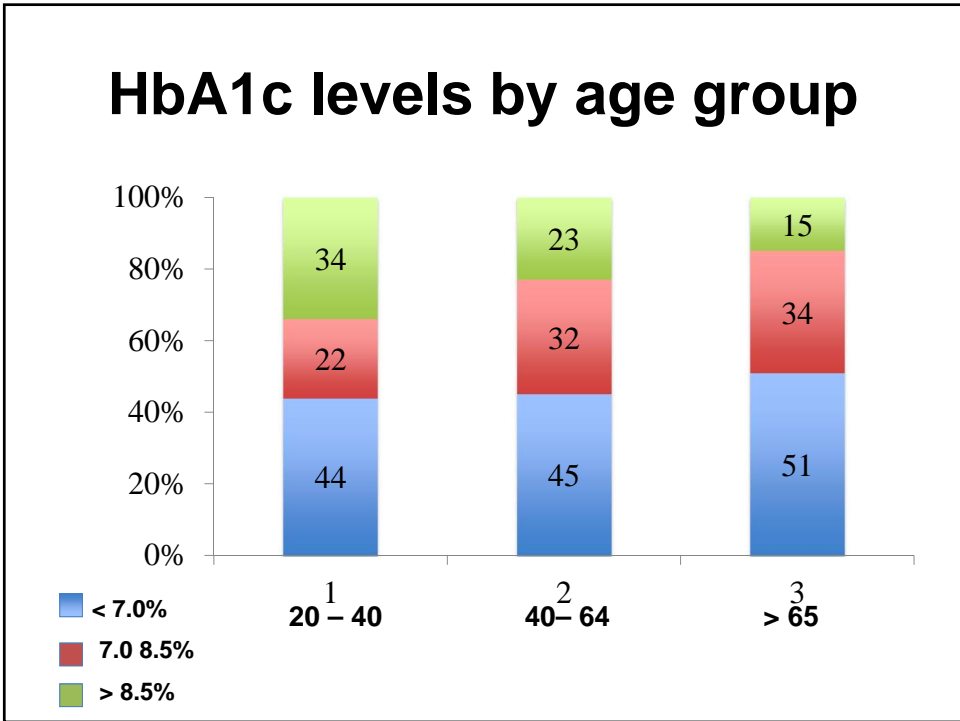
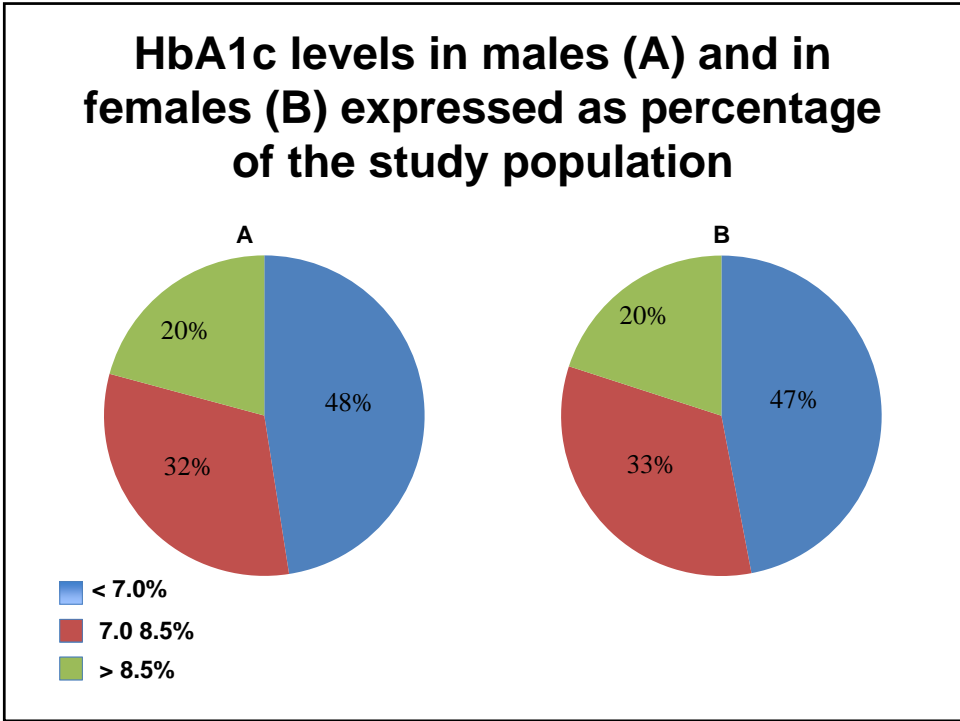
Males: n:
5,987

Females
n: 10,450

Age range
< 40 yo
n: 667

Age range
40 – 65 yo
n: 9697

Age range
> 65 yo
n: 6073



Summary

- **Glycemic control as assessed by HbA1c was inadequate. Overall, 47 % of the population had HbAc < 7.0 %**
- **No differences in HbA1c levels were observed between genders.**
- **As compared to younger patients, a greater proportion of those older than 65 had HbA1c < 7.0 %.**

Conclusions

- **In older diabetic patients, HbA1c levels < 7.0 % may be associated with hypoglycemic events and would have an increase risk of cardiovascular events.**
- **Individualization of glycemic goals must be implemented to prevent potential complications associated with hypoglycemic episodes.**
- **Further studies are needed to better understand the determinants of glycemic control in Costa Rica.**

DEAL Diabetes in Latin America

Objectives

- **The study was designed to evaluate how diabetes is treated in Latin America by general practitioners, and whether the prescribed treatment is successful in controlling the disease**

Lopez-Stewart G, Tambascia M, Rosas-Guzman J, Etchegoyen F, Ortega-Carrion J, Artemenko S
Latin American Diabetes Assoc (ALAD) 2013

DEAL Diabetes in Latin America

Methods

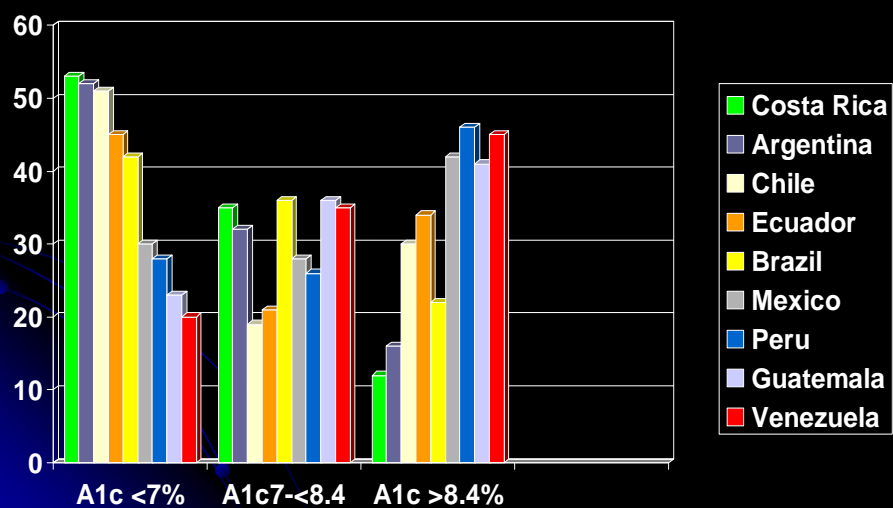
- **A multicenter cross-sectional epidemiological study in 9 Latin American countries. General practitioners were asked to recruit patients (18-75 yrs) with DM2 and to collect demographic data, medical Hx, antidiabetic medications, laboratory and information on the challenges of patient management**

DEAL Diabetes in Latin America

Countries

- Argentina
- Brazil
- Chile
- **Costa Rica**
- Ecuador
- Guatemala
- Mexico
- Peru
- Venezuela

DEAL Diabetes in Latin America



DEAL Diabetes in Latin America

Discussion

- The study suggest there is room for glycemic control improvement
- Not surprising for participants with 6 or more years of diabetes more than 50% had 3 or more co-morbid conditions
- As in other studies micro and macro-vascular complications increased in prevalence with duration of disease

Diabetes in Latin America

Conclusions

- Blood glucose are not optimal in type 2 diabetes patients in Latin Ame, particularly in those with longer duration of disease
- Among the 9 countries in “DEAL” Costa Rica was the best
- More efficient programs of diabetes control is required in the region

Muchas Gracias!

