



# Doença Renal do Diabetes

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# Potencial Conflito de Interesse

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**Professor Titular do Departamento de Medicina Interna da UFRGS**

**Membro da SBD, SBEM, ADA, Endocrine Society, AMRIGS, SIMERS**

**Financiamento de Pesquisa**

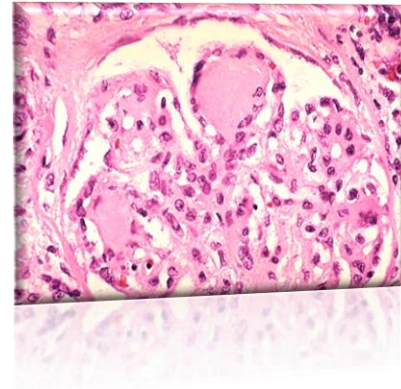
- **Bayer, Merck Sharp & Dohme, Novo Nordisk, Eli Lilly, Glaxo Smith Kline, CNPq, FAPERGS, FIPE-HCPA, UFRGS**

**Apoio Eventos**

- **NovoNordisk, CNPq, FAPERGS, FIPE-HCPA, UFRGS**

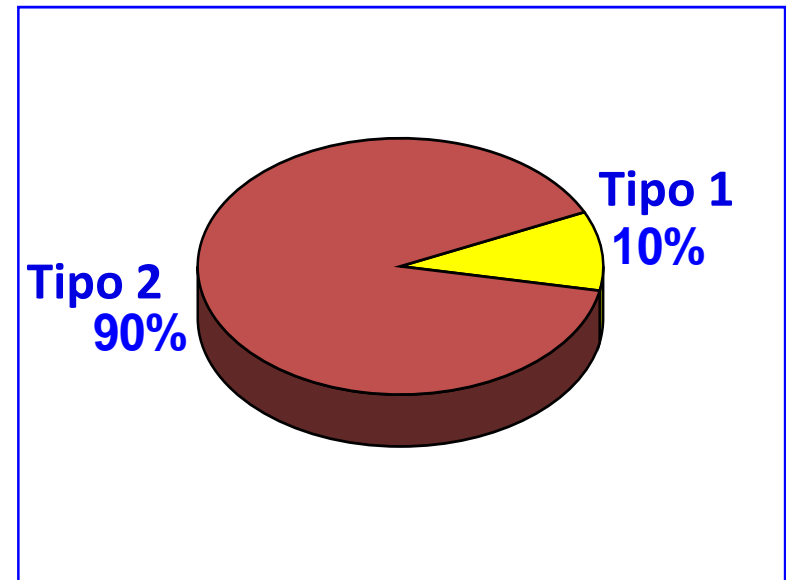
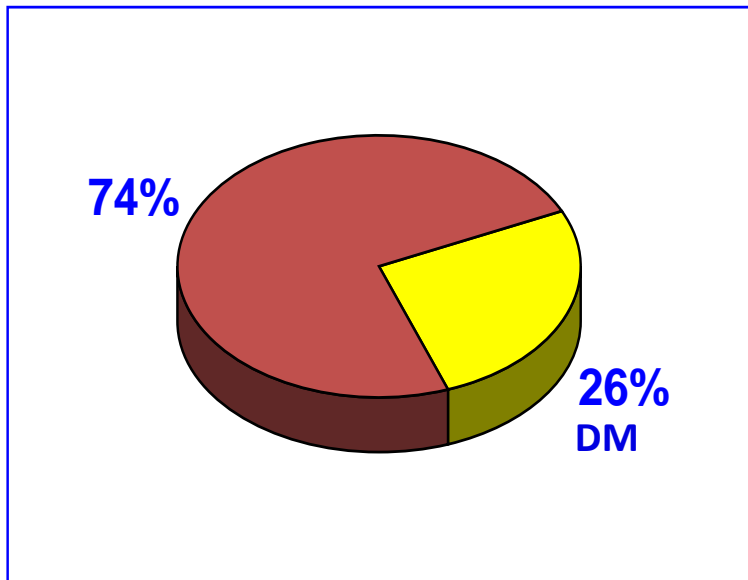
# Fatores de risco

- ✓ **Hiperglicemia crônica – tempo de exposição**
- ✓ **Hipertensão arterial sistêmica**
- ✓ **Fumo**
- ✓ **Dislipidemia**
- ✓ **Fatores dietéticos – proteína e gordura**
- ✓ **Hiperfiltração glomerular**
- ✓ **Proteinúria**
- ✓ **Etnia / genéticos**

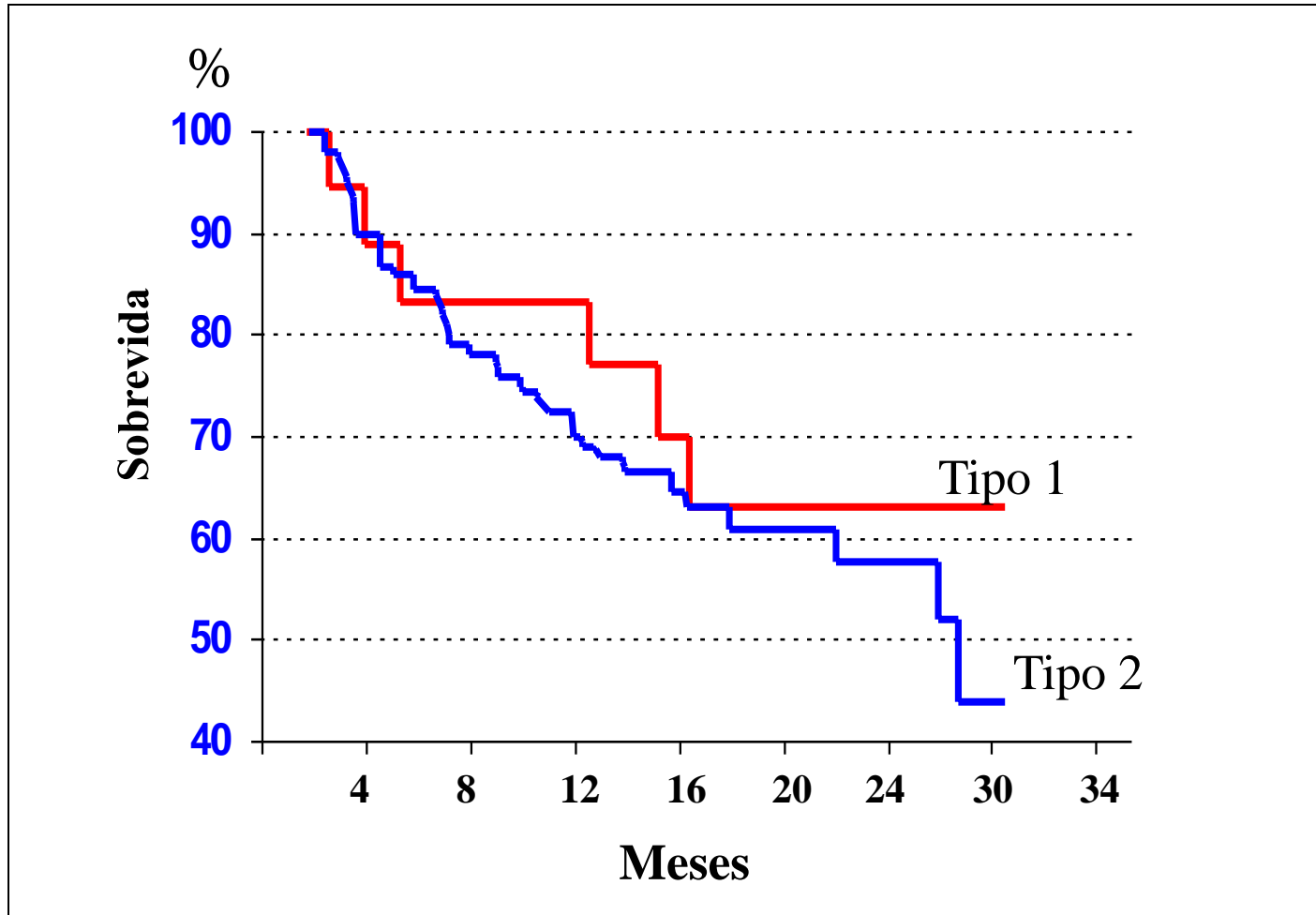


# Doença Renal do Diabetes

## Proporção Iniciando Diálise no Rio Grande do Sul

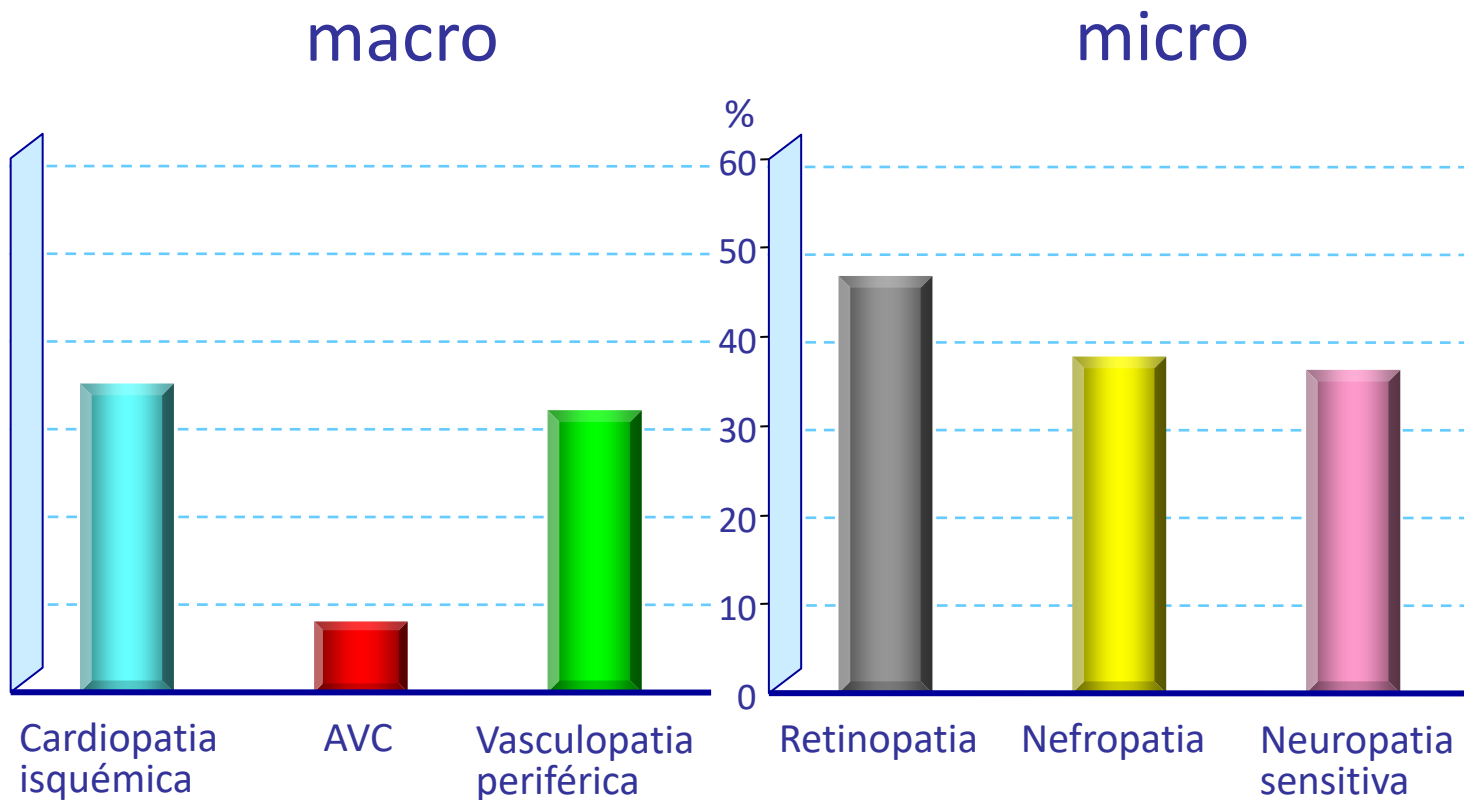


## Curva de Sobrevida ao Início de Diálise



# Complicações crônicas

927 pacientes ambulatoriais com Diabetes Tipo 2





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Contents available at ScienceDirect

Diabetes Research  
and Clinical Practice

journal homepage: [www.elsevier.com/locate/diabres](http://www.elsevier.com/locate/diabres)



International  
Diabetes  
Federation



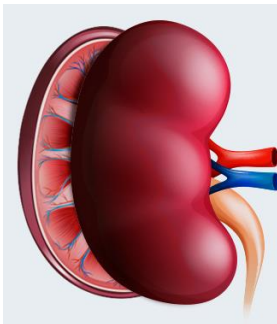
## Diabetes-related chronic complications in Brazilian adolescents with type 1 diabetes. A multicenter cross-sectional study



Marilia Brito Gomes<sup>a</sup>, Luis Eduardo Calliari<sup>b,\*</sup>, Deborah Conte<sup>a</sup>, Caio Lima Correa<sup>a</sup>, Karla Rezende Guerra Drummond<sup>c</sup>, Felipe Mallmann<sup>d</sup>, André Araújo Pinheiro<sup>e</sup>, Luiza Harcar Muniz<sup>a</sup>, Franz Schubert Lopes Leal<sup>f</sup>, Paulo Henrique Morales<sup>c</sup>, Carlos Antonio Negrato<sup>g</sup>

N = 367

Média de Idade 16,4 anos



14%

# Exames



**Creatinina** → Cálculo da TFG

**Albuminúria** em amostra





### GFR CALCULATOR

Glomerular filtration rate (GFR) is the best overall index of kidney function. Normal GFR varies according to age, sex, and body size, and declines with age. The National Kidney Foundation recommends using the CKD-EPI Creatinine Equation (2009) to estimate GFR.

Serum Creatinine:   mg/dL  μmol/L

Serum Cystatin C:  mg/L

Age:  Years

Gender:  Male  Female

Race:  Black  Other

Standardized Assays:  Yes  No  Not Sure

Remove body surface adjustment:  Yes  No  Not Sure

**CALCULATE**

### Results

CKD-EPI creatinine equation (2009)	<input type="text" value="51"/>	mL/min/1.73m <sup>2</sup>
CKD-EPI creatinine-cystatin equation (2012)	<input type="text" value="N/A"/>	mL/min/1.73m <sup>2</sup>
CKD-EPI cystatin C equation (2012)	<input type="text" value="N/A"/>	mL/min/1.73m <sup>2</sup>
MDRD study equation	<input type="text" value="47"/>	mL/min/1.73m <sup>2</sup>

What is the patient's ACR?†

<30 mg/g  <3 mg/mmol

30-300 mg/g  3-30 mg/mmol

>300 mg/g  >30 mg/mmol

Based on the information supplied:

GFR category is: ‡

ACR category is: \*\*

CKD classification is:

Risk of progression is:

Frequency of monitoring should be:

Referral to a nephrologist is:

# Tratamento

## Primário

Prevenção da doença renal – albuminúria

Controle da glicemia

Controle da hipertensão arterial  
(IECA, BRA)

## Secundário

Prevenção da progressão da albuminúria ou queda da TFG

Controle da glicemia

Controle Hipertensão

iSGLT2, Finerenona

# Cardiovascular and Renal Events in EMPA-REG Outcome



↓ 3P-  
MACE



↓ CV death



↓ All-cause  
mortality



↓ Hospitalizations  
for heart failure

# Cardiovascular and Renal Events in EMPA-REG Outcome



↓ 3P-MACE



↓ CV death



↓ All-cause mortality



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New or worsening nephropathy



Progression to macro-albuminuria



Doubling of serum creatinine



Initiation of renal replacement therapy

# Doença Renal do Diabetes

Frequente (>50% dos pacientes ambulatoriais)

Alta morbi-mortalidade

## Diagnóstico

Simples – amostra de urina e sangue  
(creatinina e albumiúria)

## Tratamento

Simples, efetivo

IECA, BRA, iSGLT2



**OBRIGADO**

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# Posicionamento Oficial Tripartite

nº 01/2016

SBD / SBEM / SBN

## PREVENÇÃO, DIAGNÓSTICO E CONDUTA TERAPÊUTICA NA DOENÇA RENAL DO DIABETES



