

# HIGH SENSITIVITY TROPONIN T IN CHRONIC KIDNEY DISEASE (CKD)

Javier Reque, Borja Quiroga, Juan M Lopez, Ursula Verdalles, Marisol Garcia de Vinuesa, Marian Goicoechea, Nayara Panizo, David Arroyo, Jose Luño

HOSPITAL GENEAL UNIVERSITARIO GREGORIO MARAÑON

## OBJECTIVES

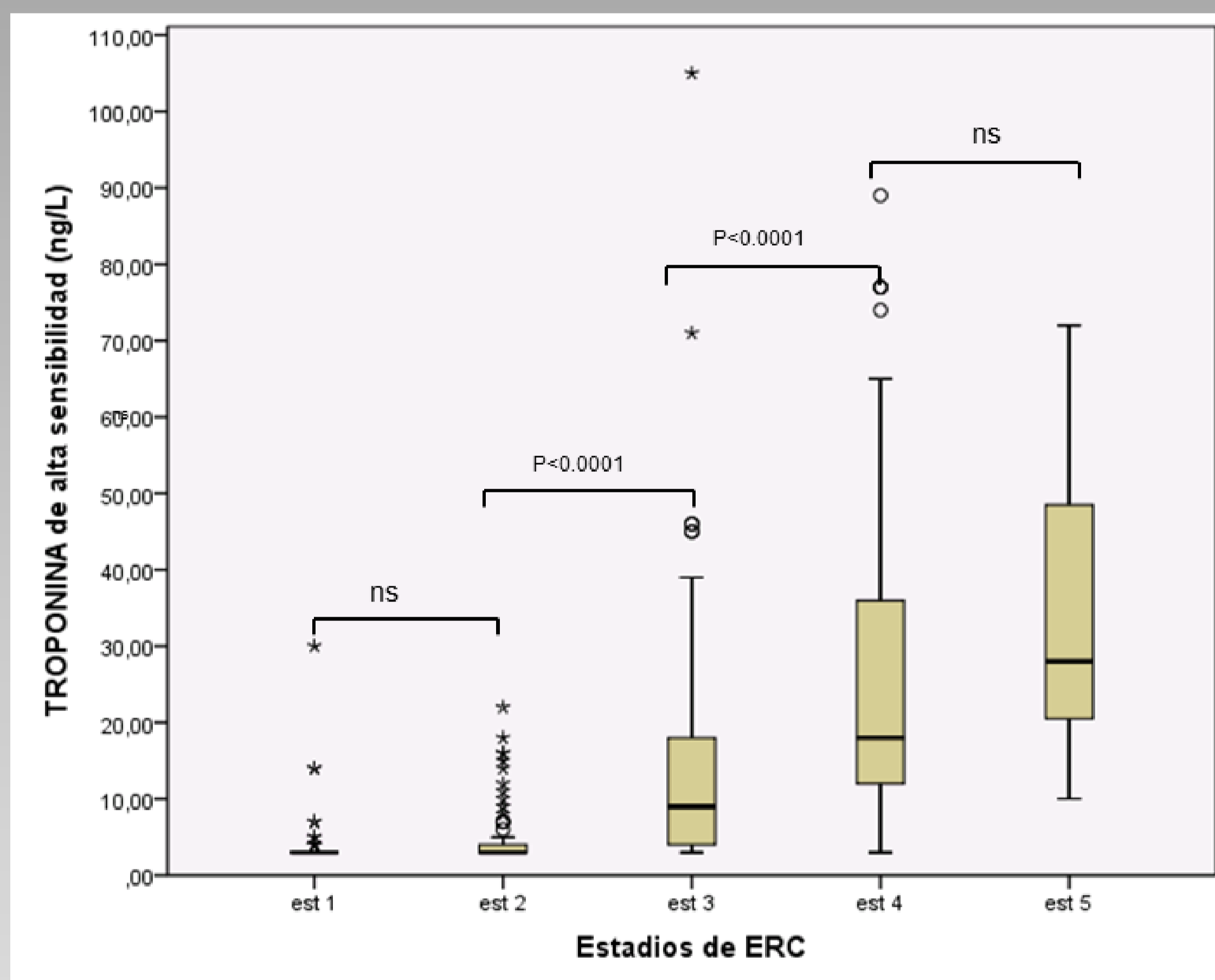
To study the influence that the degree of renal function has on levels of hs-TnT and its possible association with other cardiovascular risk factors.

## METHODS

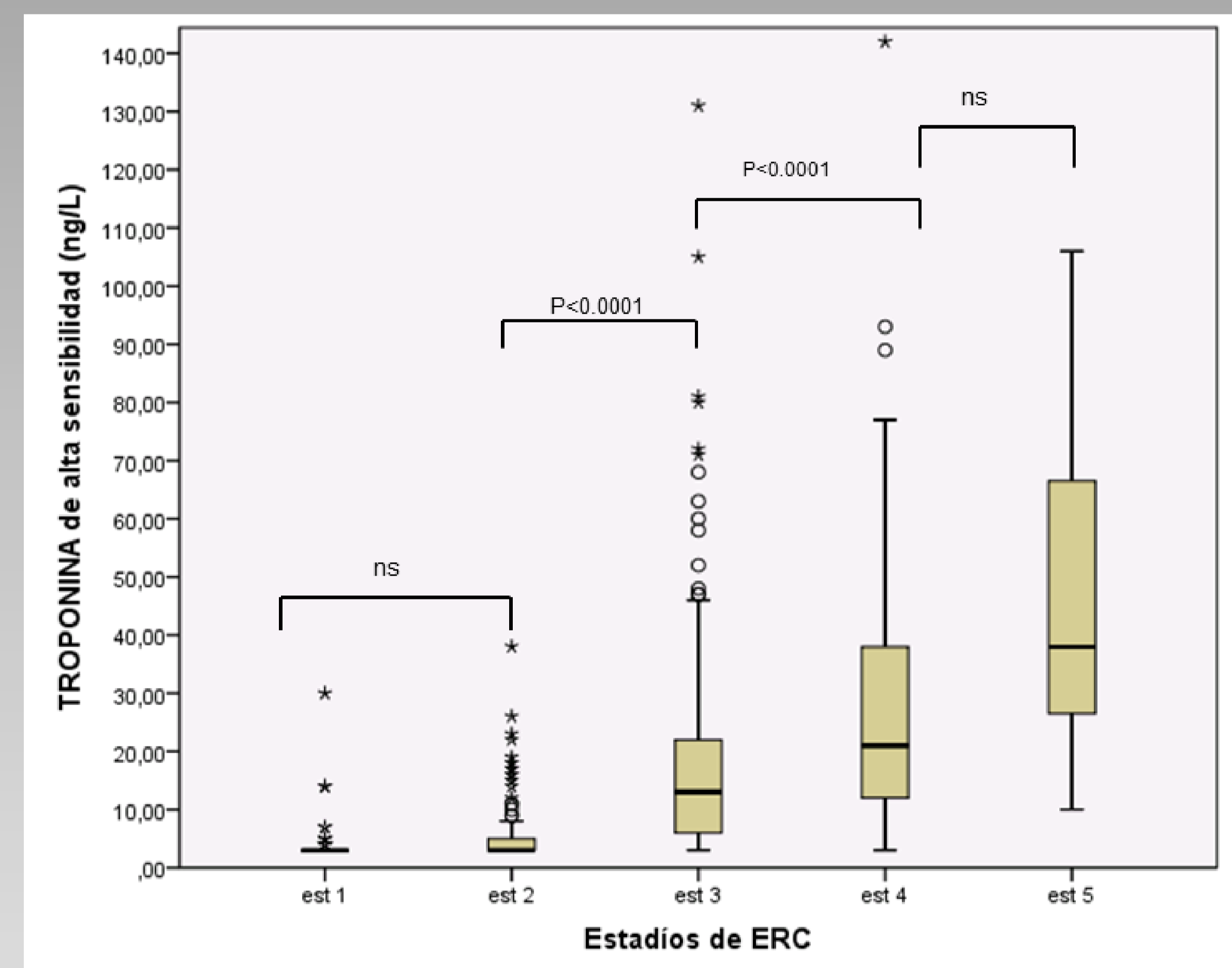
We conducted a prospective study including 563 patients: 58% male, 32.5% diabetics, aged  $64 \pm 17$  years, at different stages of CKD.

We collected clinical history, routine laboratory parameters and hs-TnT. 20% had coronary heart disease (CHD) history and 9.2% of acute myocardial infarction (AMI). Glomerular filtration rate was  $50 \pm 29$  ml/min/m<sup>2</sup> (MDRD-4) and  $51 \pm 29$  ml/min/m<sup>2</sup> (CKD-EPI). In 408 patients an echocardiogram was performed simultaneously.

With CHD history



Without CHD history



# RESULTS

	Beta Coeficient (95%CI)	p
Age	0.200 (0.074-0.326)	P=0.0200
CKD-EPI	-0.172 (-0.248- -0.097)	p<0.0001
AMI	13.70 (7.947-19.45)	p<0.0001
LVH	0.011 (0.007-0.015)	P<0.0001

## CONCLUSIONS

Hs-TnT levels increased as the severity of CKD, even without evidence of acute myocardial damage, so the value of this marker must be adjust according to the degree of renal function. hs-TnT concentrations are higher as in men, patients with history of CHD and those with left ventricular hypertrophy (LVH).

## REFERENCES:

- Interpreting cardiac troponin results from high-sensitivity assays in chronic kidney disease without acute coronary syndrome. *Clin Chem*. 2012 Sep;58(9):1342-51
- Cardiac troponins T and I in patients with end-stage renal disease: the relation with left ventricular mass and their prognostic value. *Clin Cardiol*. 2004 Dec;27(12)
- Cardiac Troponins and Renal Failure. The Evolution of a Clinical Test *Circulation*.2005; 112: 3036-303704-9

