

«9ο Περιφερειακό Συνέδριο Ελληνικής Εταιρείας Αιμαφαίρεσης»

# Γιατί έχουν τόσο ενδιαφέρον οι HIF-PHIs

Σ. Λιονάκη

Επ. Καθηγήτρια Νεφρολογίας, ΕΚΠΑ

Π.Γ.Ν ΑΤΤΙΚΟΝ

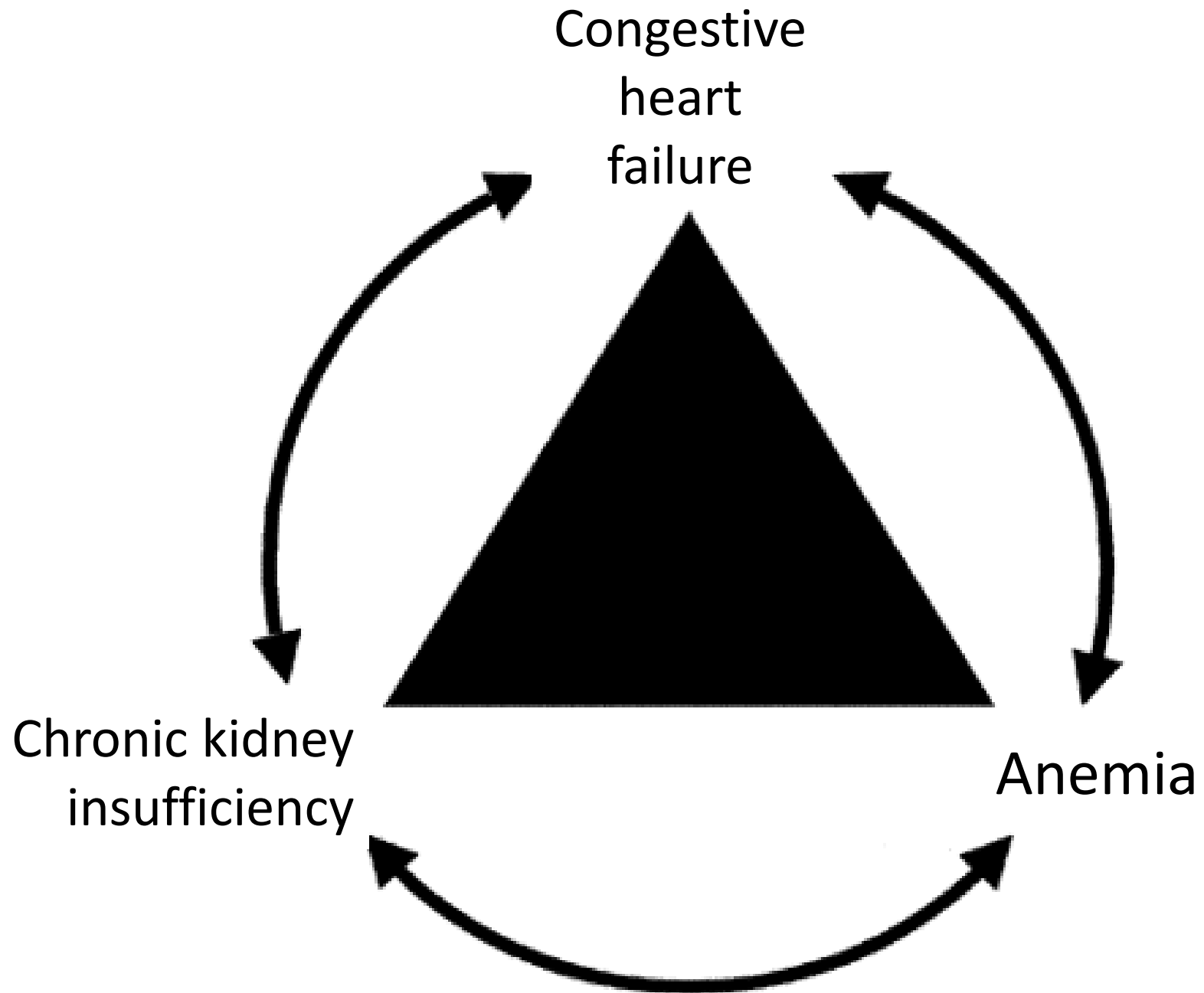
# Anemia in chronic kidney disease (CKD)

- NHANES , N=15,000 participants
- Hb < 12 g/dl males and Hb < 11 g/dl females

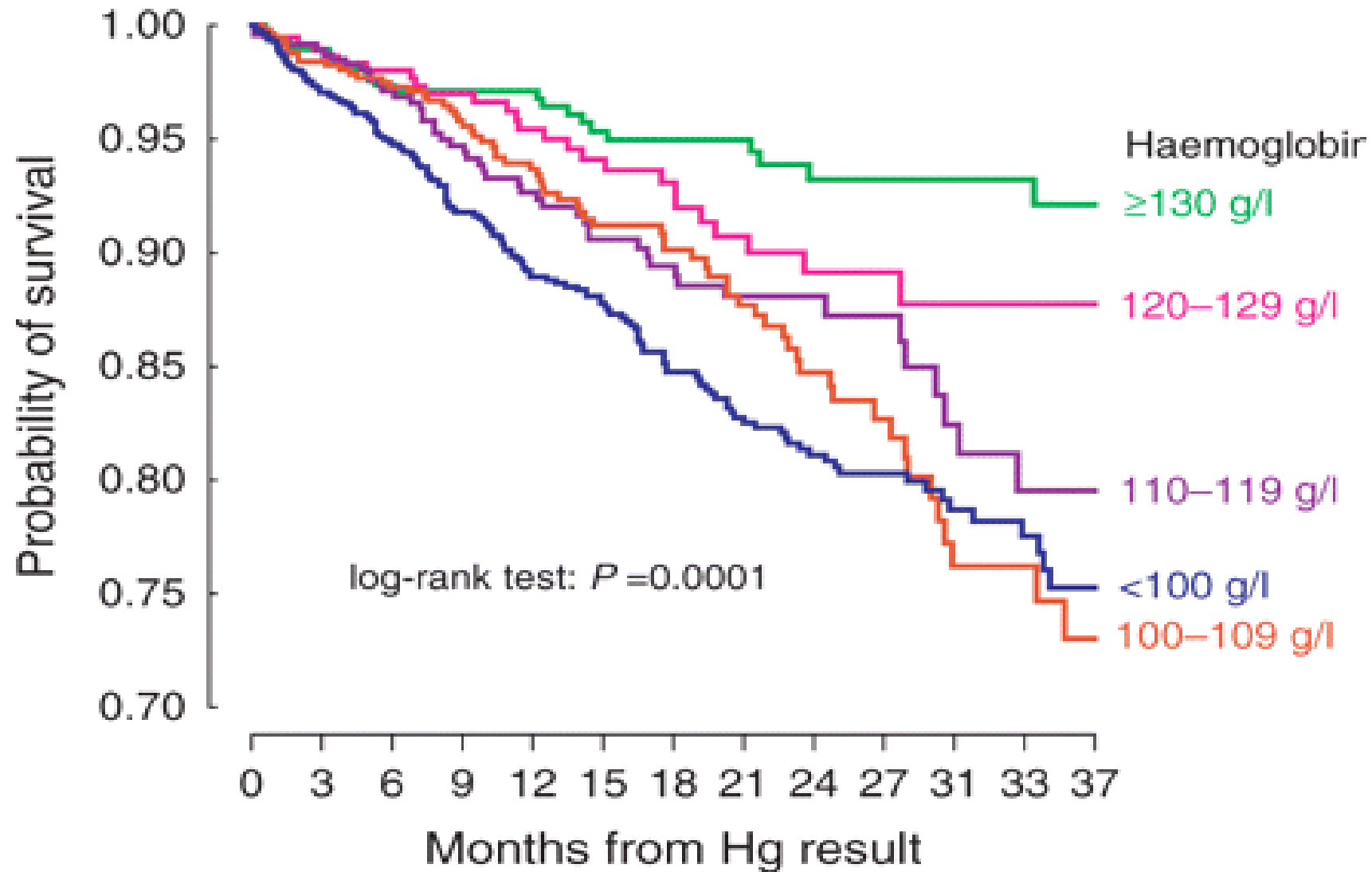
GFR ml/min/1.73 m <sup>2</sup>	Prevalence of anemia
< 60	1%
<30	9%
<15	33-67%

## Severe anemia, independent risk factor for:

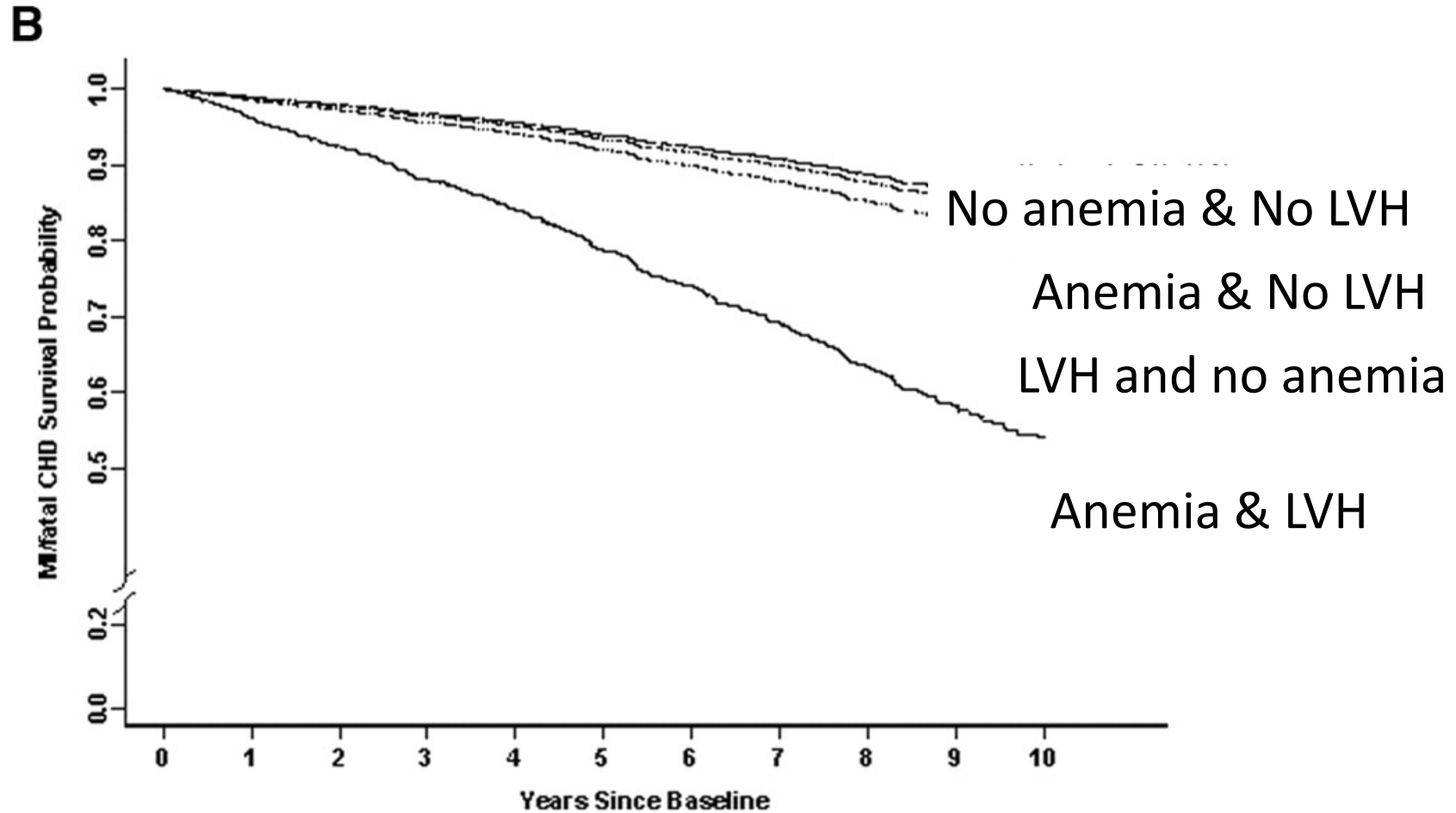
- Left ventricular hypertrophy (LVH)
- Heart failure
- Adverse cardiovascular outcomes
- Death



## Survival of CKD Patients by Haemoglobin Level



# Anemia and LVH: Higher risk of myocardial infarction/fatal chronic heart disease



# Resistance or Hyporesponse to erythropoietin

## Definition

- Patients who do not achieve the desired Hb concentration despite higher than usual doses of ESAs
- Patients who require increasingly higher ESA doses to maintain a target Hb concentration.

# EPO resistance criteria - KDOQI

## **KDOQI**

Inability to achieve or maintain a desired Hb using a maximum dose of

- 450 units/kg/week iv EPO or
- 300 units/kg/week sc EPO.

## **KDIGO**

Failure to attain or maintain Hb with

- 300 units/kg/wk of EPO (20,000 units/wk)
- 1.5 mcg/kg/wk of darbepoetin alfa (100 mcg/wk).



## EPO resistance frequency: 12.5% of dialysis patients!

### Retrospective study

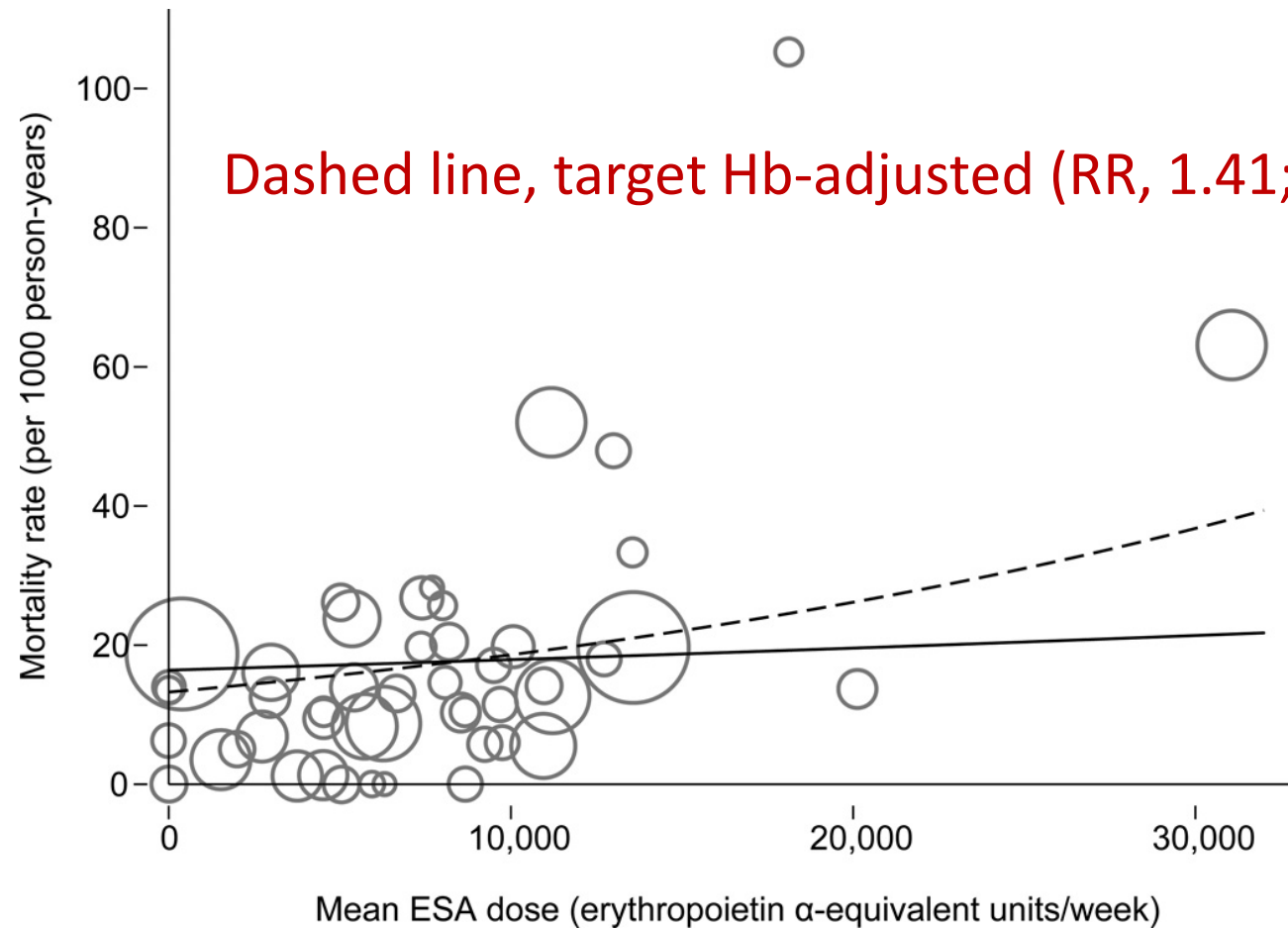
- ESA hyporesponsiveness defined as:
- 2 consecutive Hb <10 g/dL while receiving epoetin >7700 units/dose.
- Among patients on peritoneal dialysis: less common

# EPO resistance is associated with increased mortality

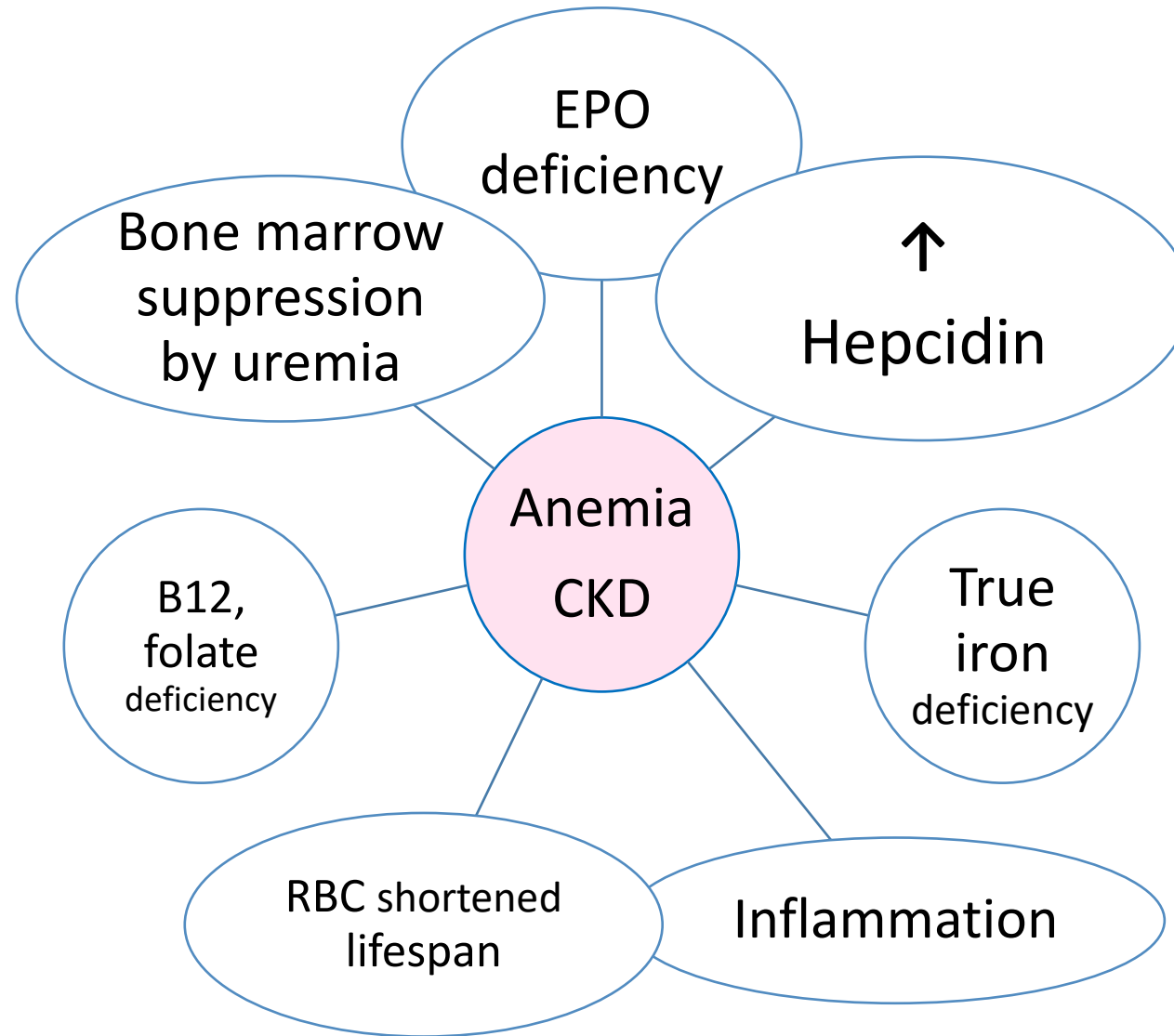
## Increased mortality

- Likely due to the underlying cause of ESA resistance.
- Related to the higher ESA doses that are used in these patients.

# Association of the total-study-period mean weekly ESA dose with all-cause mortality



# Anemia in Chronic kidney disease



Συμπεράσματα

# Roxadustat in patients with NDD-CKD

- Effective at achieving and maintaining target Hb levels over time
- Average Roxadustat dose remained similar over 104 weeks of treatment
- Significantly ↓ LDL cholesterol from baseline VS placebo
- Similar % patients achieved Hb response with Roxadustat vs darbepoetin alfa
- ↓ Incidence of IV iron use was with roxadustat vs darbepoetin alfa

# Roxadustat in patients with dialysis

- Demonstrated non-inferiority compared with ESA in:
  - ✓ Mean change in Hb from baseline to Weeks 28–36
  - ✓ Proportion of patients achieving Hb response during Weeks 28–52
  - ✓ Achieving and maintaining target Hb over 52 weeks
- Roxadustat reduced the use of IV iron supplementation compared with ESA
- Significantly reduced mean LDL cholesterol compared with ESA
- The need for RBC transfusion was reduced

- Ευχαριστούμε για την προσοχή σας!