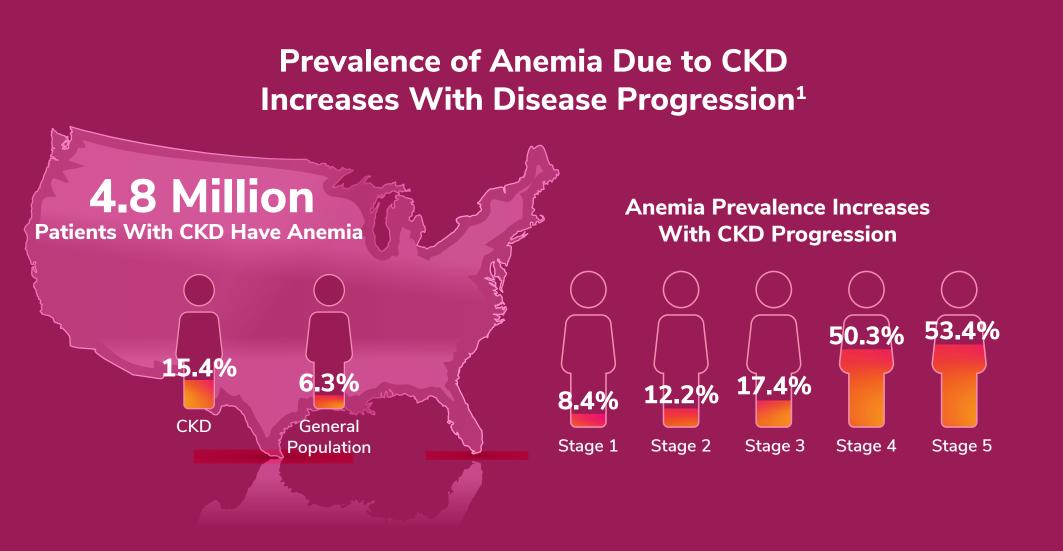
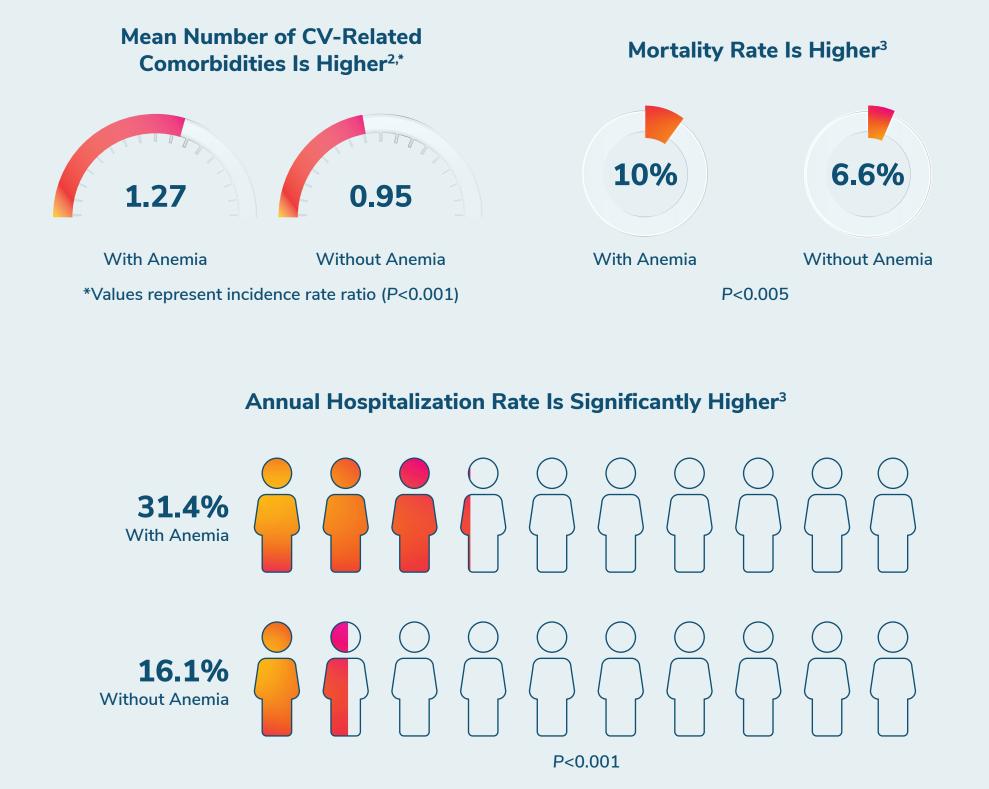
# **Burden of Anemia Due to Chronic Kidney Disease**



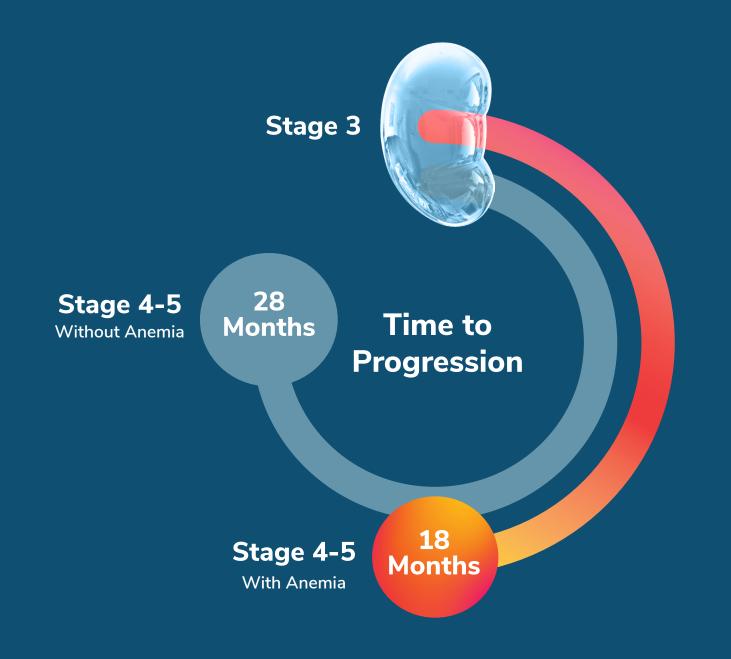
### Higher Clinical Burden is Demonstrated in Patients With Anemia and CKD (Stages 3-4)



# Reduced Quality of Life Is Associated With Anemia in Patients With CKD (Stages 3-5D)



# Anemia Is Correlated With Accelerated CKD Progression<sup>3</sup>

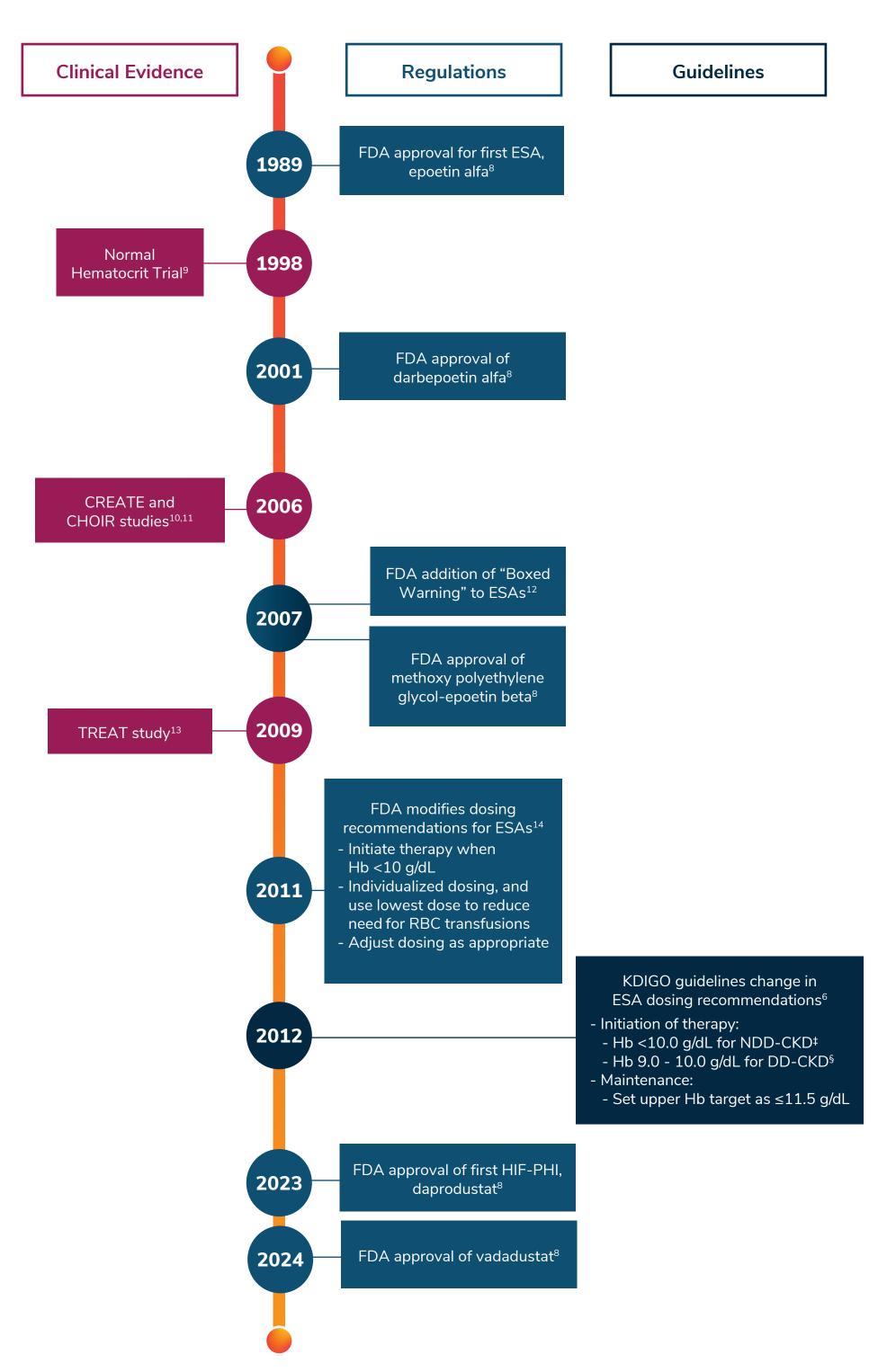


## **Treatment Landscape of Anemia Due to CKD**<sup>6,7</sup>

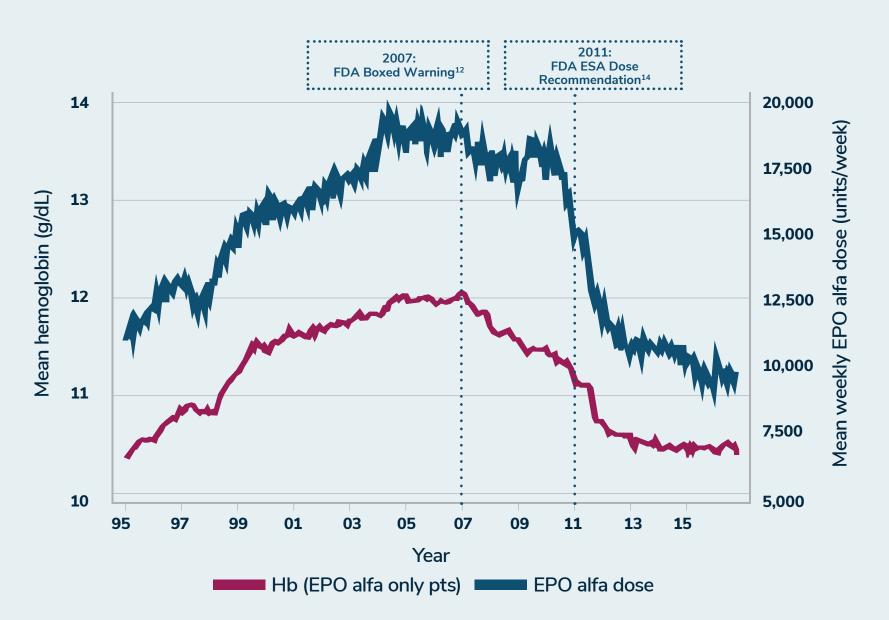
The treatment landscape of anemia due to CKD includes iron supplementation, ESAs, hypoxia-inducible factor prolyl hydroxylase inhibitors (HIF-PHIs), and RBC transfusion, which all improve clinical measures by balancing potential benefits with risks.

ESAs have remained a mainstay for 30 years by increasing Hb levels and decreasing the need for RBC transfusions. HIF-PHIs are the latest addition to the treatment landscape as oral treatments which stimulate endogenous erythropoietin production.

Both ESAs and HIF-PHIs are recommended to be used to maintain Hb levels within 10 to 11 g/dL and have a warning of increased risk of death and cardiovascular events. This is based on findings from randomized clinical trials that led to changes in regulatory and clinical practice guidance outlined below.



<sup>‡</sup>Decision to start ESA for NDD-CKD should be individualized based on rate of Hb concentration decline, prior response to iron therapy, risk of needing transfusion, risk related to ESA therapy, and anemia symptoms. <sup>§</sup>For DD-CKD, ESA should be initiated to prevent a decline in Hb to <9.0 g/dL.



#### Mean Hemoglobin Levels in ESA-Treated Hemodialysis Patients<sup>15</sup>

Adapted from 2018 USRDS Annual Data Report: Epidemiology of Kidney Disease in the United States.

Abbreviations List: CKD, chronic kidney disease; CV, cardiovascular; DD, dialysis-dependent; EPO, erythropoietin; ESA, erythropoiesis-stimulating agent; FDA, Food and Drug Administration; Hb, hemoglobin; KDIGO, Kidney Disease Improving Global Outcomes; NDD, non–dialysis-dependent; pts, patients; RBC, red blood cell; USRDS, United States Renal Data System

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