

Costs of Chronic Kidney Failure and Diabetic Nephropathy in Türkiye



Kurnaz M¹, Okcun S¹, Kockaya G¹, Buyuktuna N², Buyukisik T², Babuscu S², Saylan M²

¹ Econix Research, Analysis, and Consulting Inc., Istanbul, Türkiye, ² Bayer Pharmaceutical, Istanbul, Türkiye

Introduction

- ∅ The prevalences of chronic kidney failure (CKF) in Türkiye is 15.7%, and diabetic nephropathy (DN) is 3.23%¹.
- ∅ DN is the most common cause of CKF, leading to end-stage kidney disease and premature death².
- ∅ In 2009, DN was reported to cause ~44% of all cases of chronic end-stage renal disease in the United States³.
- ∅ CKF patients are classified in 5 stages according to their estimated glomerular filtration rates (eGFR).
- ∅ The fifth stage includes cases where the eGFR rate is lower than 15 ml/min, and since this stage requires dialysis or kidney transplantation, it creates a very high cost compared to other stages⁴.
- ∅ The aim of this study is to calculate the costs of CKF and DN according to the stages in Türkiye.

Methods

- ∅ Information on the number of CKF and DN patients in Türkiye and their distribution according to stages was obtained from Turkish epidemiological studies and the registry system of the Turkish Nephrology Society.
- ∅ For the cost calculations of the study, the costs of hemodialysis, peritoneal dialysis, and kidney transplantation for stage-five were taken from published cost of illness studies for Türkiye.
- ∅ The cost differences between the stages were compiled from the literature, and the costs of the other stages were calculated according to the rates found.
- ∅ The costs of patients with DN were calculated by multiplying the costs calculated according to the stages and the ratio of the diabetic patients to the overall cost with the payer's perspective.

Results

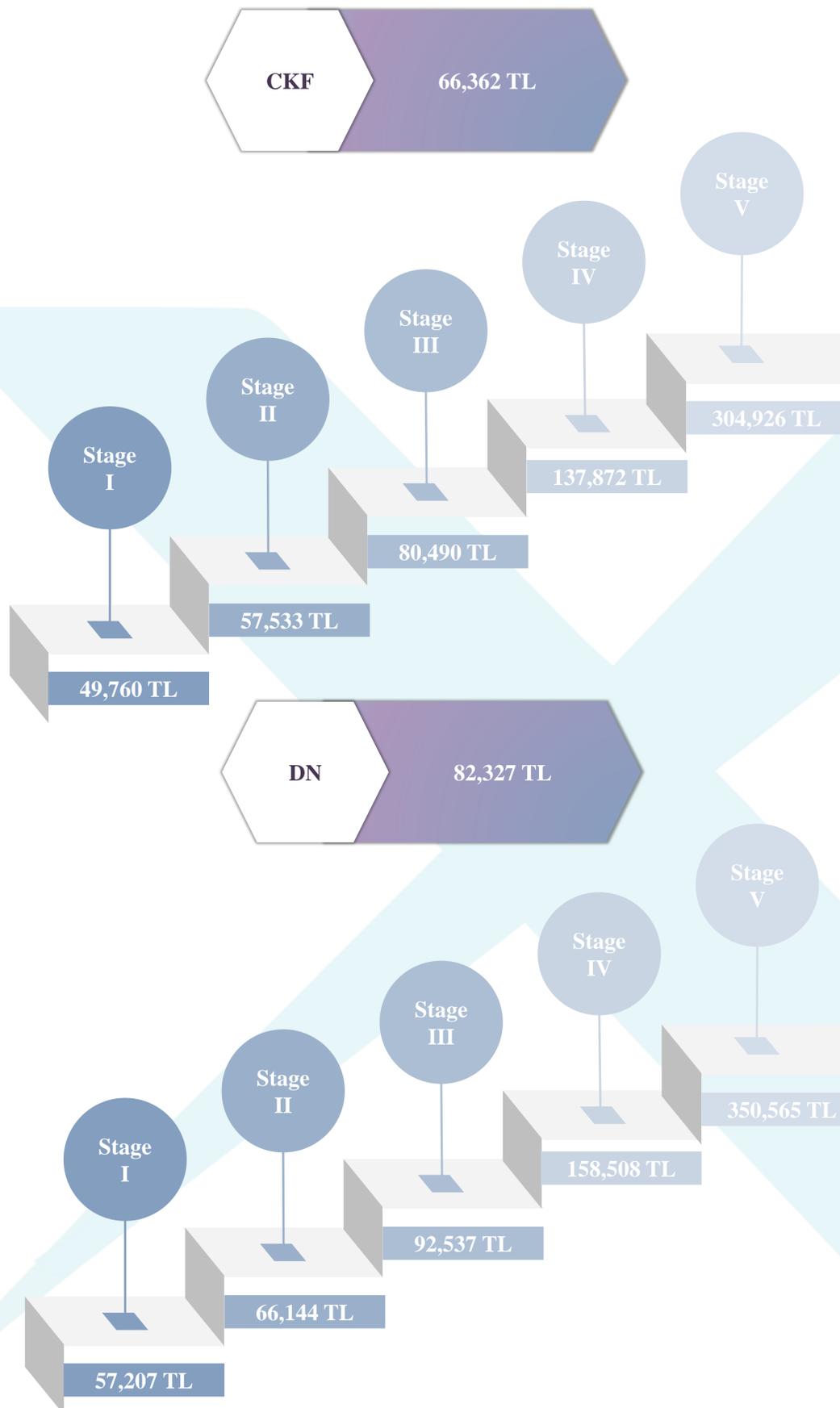
- ∅ As a result of the analyses, the annual cost per patient at any stage in Türkiye was found to be 66,362 TL for CKF and 82,327 TL for DN.
- ∅ The annual costs per patient according to the stages in CKF patients are as follows: the first-stage, 49,760 TL; the second-stage, 57,533 TL; the third-stage, 80,490 TL; the fourth-stage, 137,872 TL; and finally, the fifth-stage, 304,926 TL.
- ∅ On the other hand, the annual costs per patient according to stages in DN patients are as follows: the first-stage, 57,207 TL; the second-stage, 66,144 TL; the third-stage, 92,537 TL; the fourth-stage, 158,508 TL; and the fifth-stage, 350,565 TL.

Conclusions

- ∅ Staging is critical to helping doctors provide the best care, as each stage requires different tests and treatments.
- ∅ Especially as the stage progresses, the treatments applied in the diseases become more complicated and this situation increases the treatment costs.
- ∅ The results of this study show that the costs of stage-five CKF and DN are quite high in Türkiye.
- ∅ It is very important, from a clinical and economic point of view, to control the treatment before the patients reach stage-five.

References

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