

# Impact of Gender-specific Minimum Haemodialysis Dose on Survival

East and North Hertfordshire NHS Trust



BRITISH KIDNEY Patient ASSOCIATION  
improving life for kidney patients

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## Introduction

Studies have suggested women may be underdialysed with the current minimum haemodialysis (HD) Kt/V target of 1.2 which may be due to using total body water for scaling HD.

The aim of this study was to examine whether using Resting Energy Expenditure (REE) or Total Energy Expenditure (TEE) for scaling HD will impact on survival.

## Study Protocol

❖ 1500 HD patients were enrolled in the study across 5 HD units

❖ Demographic and anthropometric data were collected from direct measurements. HD adequacy data was collected from medical records

❖ Physical Activity data was collected using the Recent Physical Activity Questionnaire (RPAQ) which was used to calculate TEE

❖ Follow-up time was 18 months. HD data and survival data were collected at specified intervals

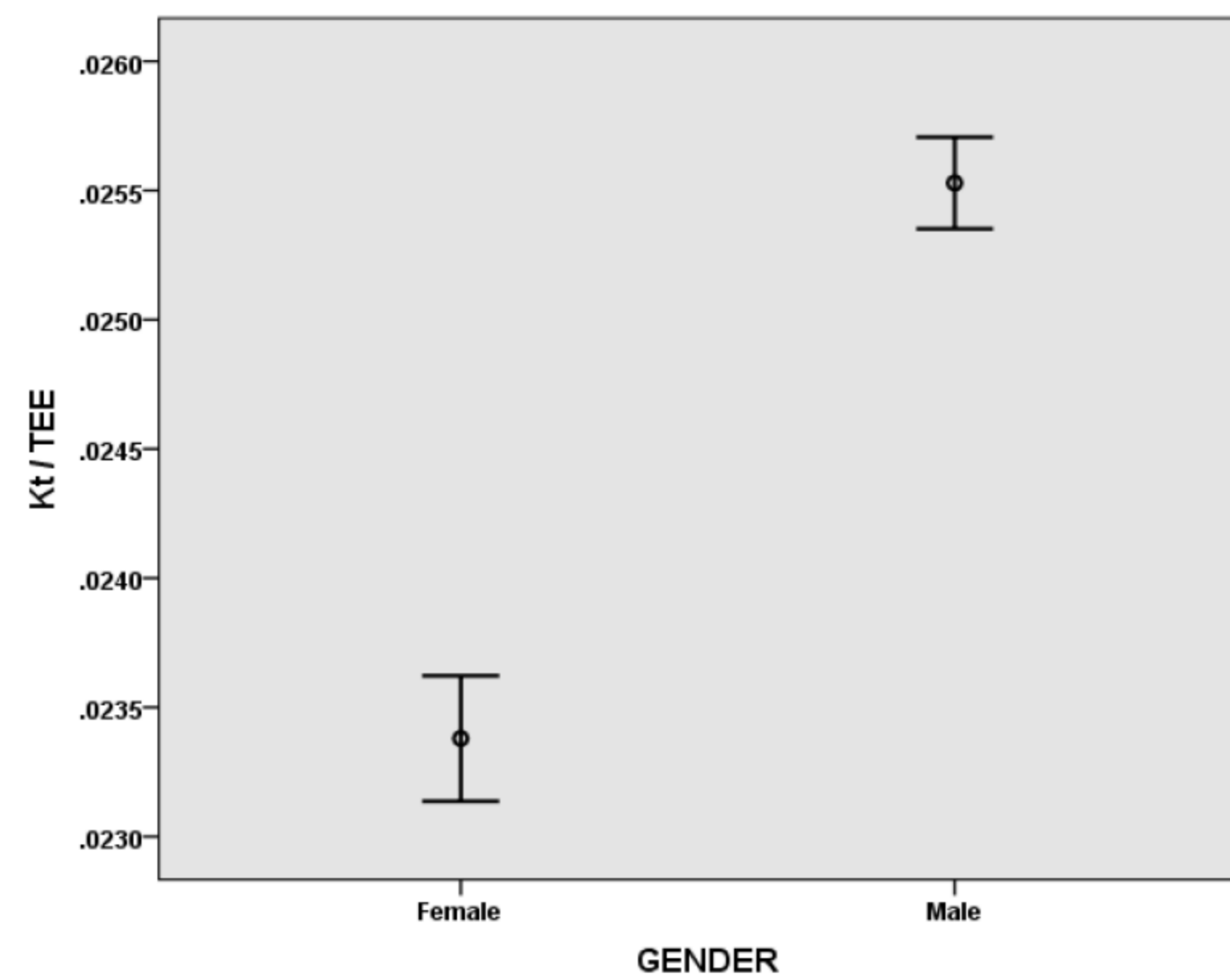
❖ REE was calculated from a novel predictive equation. Kt/REE and Kt/TEE were calculated from above.

## Demographics

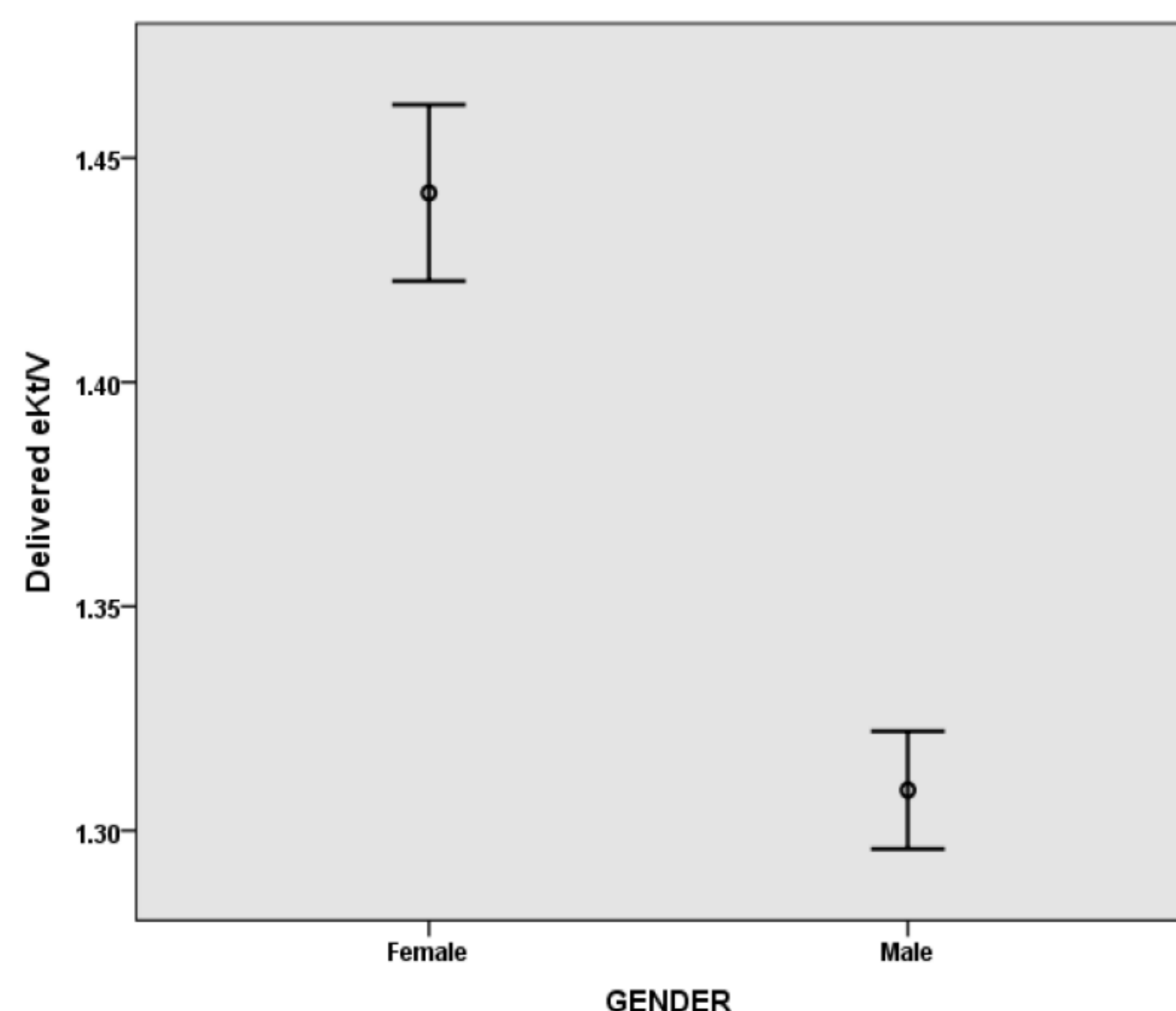
Number of patients	1500
Males : Females	910 : 590
Age (years)	62.9 15.5
Median Dialysis Vintage (years)	3.2
Median REE (kcal/day)	1530
Median TEE (kcal/day)	1781

## Results

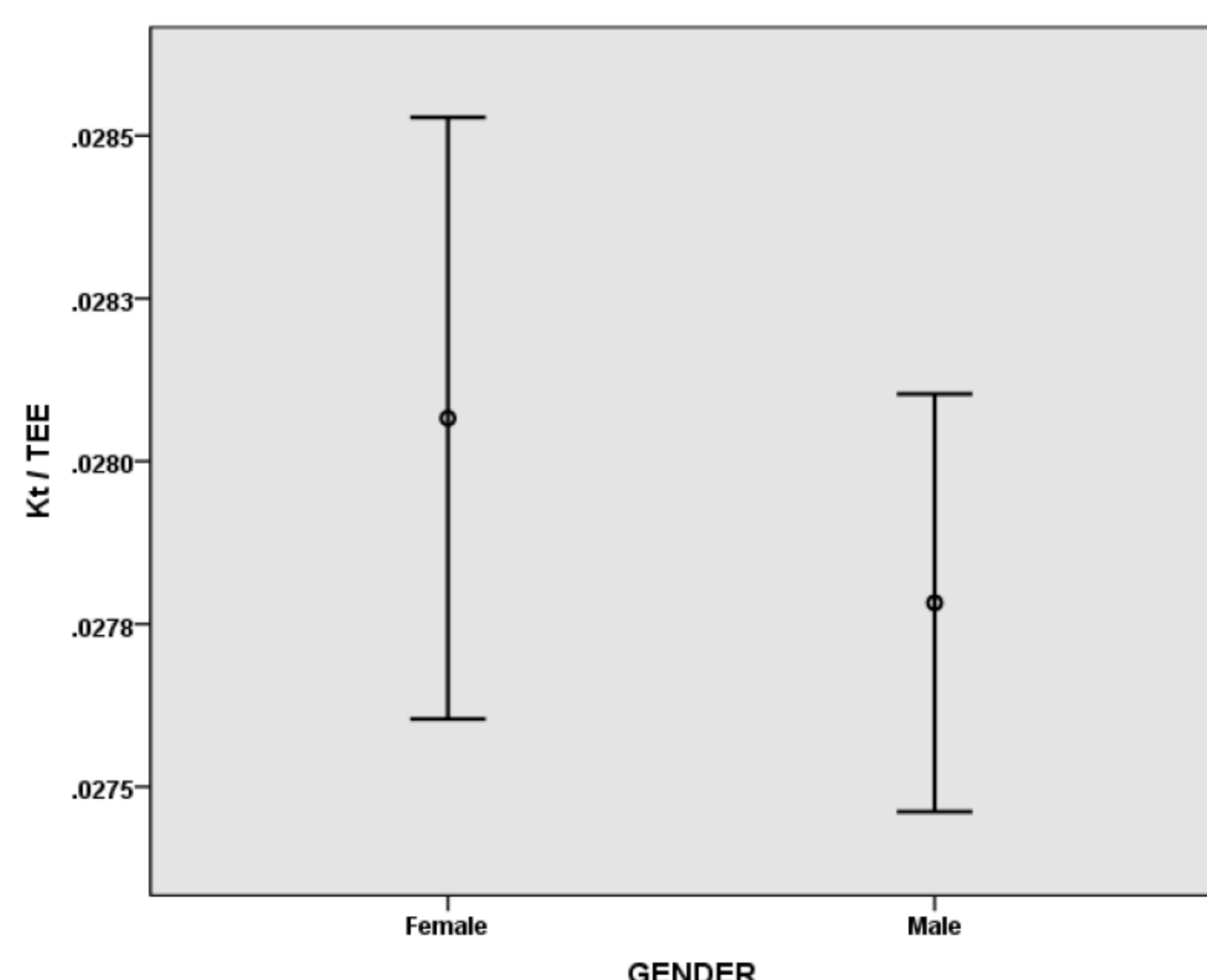
### Minimum target Kt/TEE and Gender



### Gender Difference in Delivered Kt/V

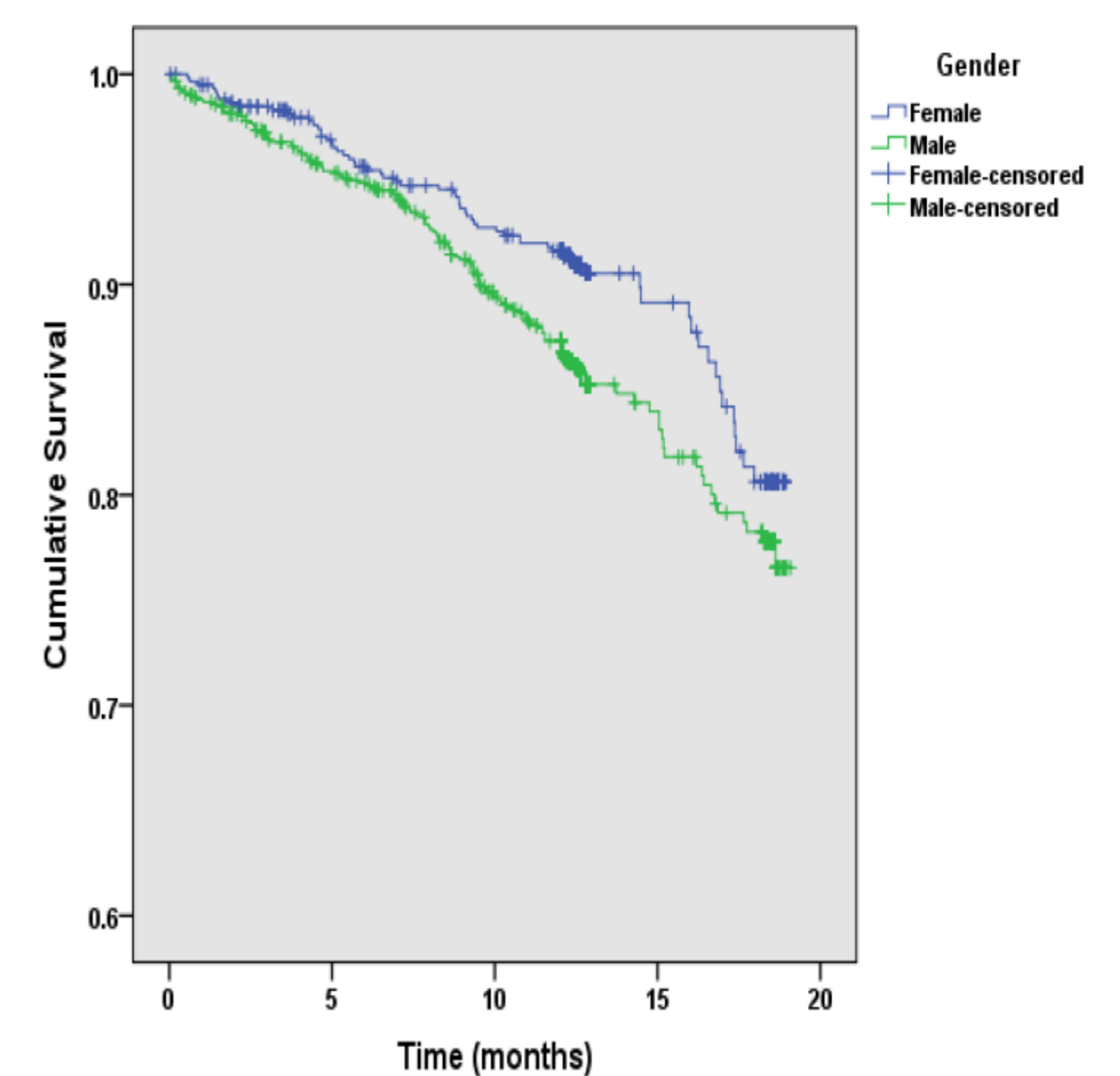


### Gender Difference in Delivered Kt/TEE



## Results

### Gender Difference in Survival



❖ 263 (17.5%) patients died during the study period

❖ For a Kt/V of 1.2, Kt/REE and Kt/TEE were significantly lower in women compared to men

❖ Delivered Kt/V was higher in women. No significant difference was noted between genders in Kt/REE and Kt/TEE based on delivered dose

❖ Women had higher survival rates compared to men which is similar to general population

## Conclusion

❖ Participating units deliver higher dialysis dose to women compared to men in the study cohort

❖ This practice delivers equivalent dose to men and women as estimated by Kt/REE or Kt/TEE

❖ Survival rates are significantly better in women with this practice

❖ This argues in favour of higher minimum haemodialysis dose for women, perhaps on the basis of higher rates of metabolic waste generation

