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RESCHEDULE

Health outcomes in over 65s
with both diabetes and CKD

Introduction

This study tracks health outcomes in people aged 65 and older with both Type 2 Diabetes (T2D) and Chronic Kidney Disease (CKD) using data from the Clinical Practice Research Datalink (CPRD). Patients were followed until they passed away, moved, their data collection ended, or the study finished.



Objectives

This study examines how systolic and diastolic blood pressure are related to the risk of death from any cause in people with Type 2 diabetes and Chronic Kidney Disease (CKD). It also aims to find out if this relationship changes based on important health factors in these individuals.

Methodology

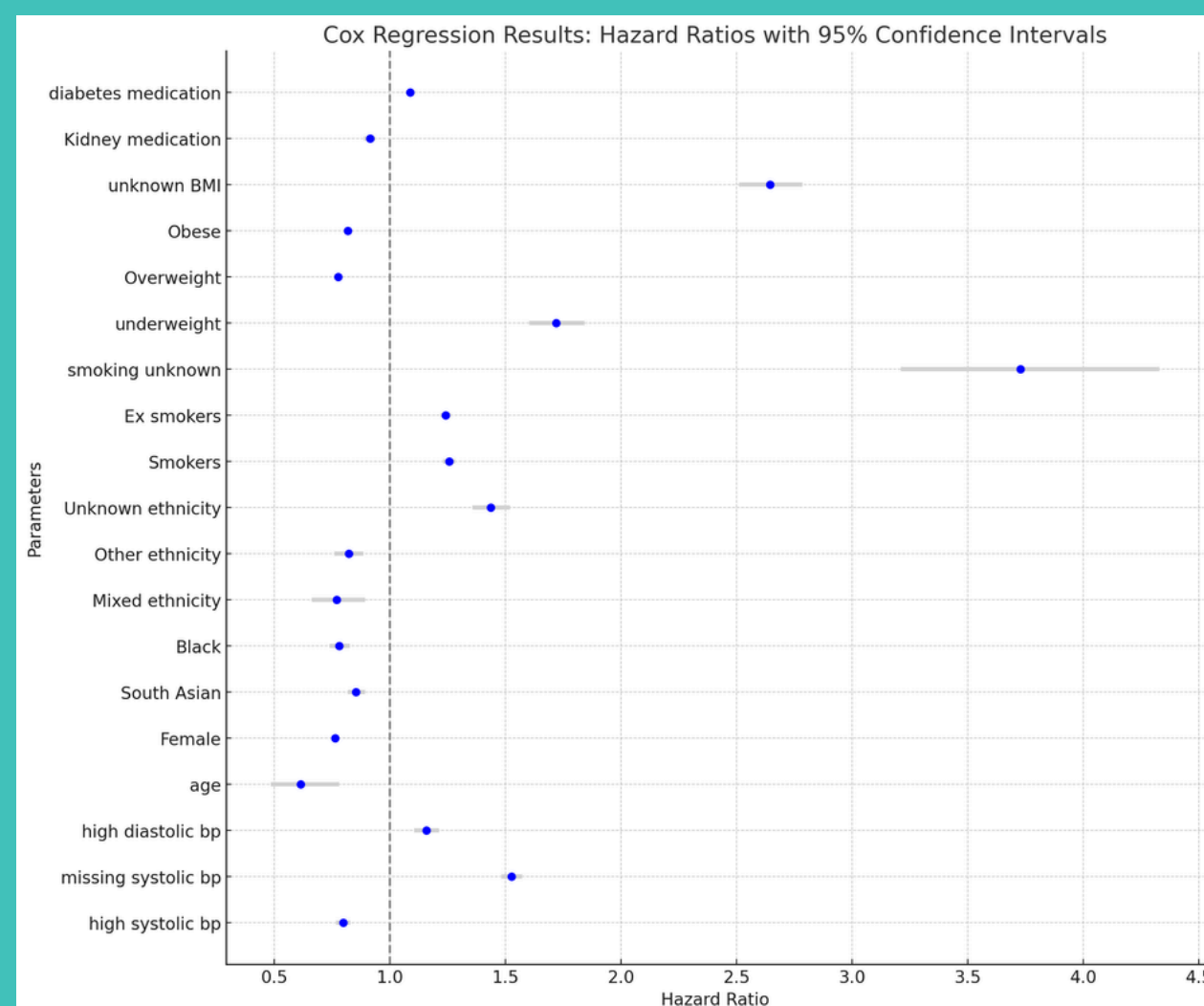
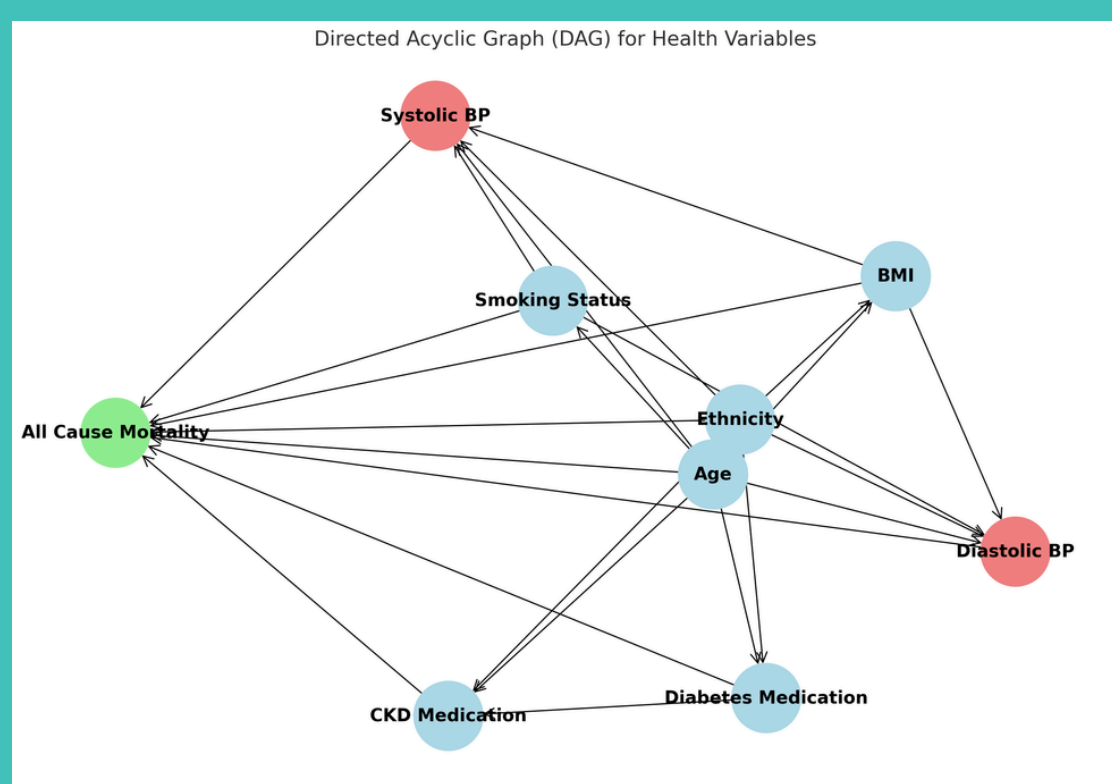
- Logistic Regression Model was used to find out how different factors (like age, gender, smoking status) relate to the chances of specific outcomes happening, such as death.
- Cox Regression Model(1) was used to analyze the timing of events, such as how long patients lived after being diagnosed.

Results

Females have a lower risk of death than males. Smokers, past and present, face higher death risk than non-smokers. South Asians and Blacks have a lower death risk, while those with unknown ethnicity have a higher risk compared to whites. Underweight individuals have a higher death risk, while overweight and obese individuals have a lower risk than those with normal weight.

Analysis

A graph was created to visually map out the relationships between outcome and influencing factors. This helped identify confounders—variables that could distort the results—so the statistical model could be adjusted for greater accuracy.



The dashed line at hazard ratio = 1 shows if a factor increases risk (right) or decreases risk (left).

Conclusion

Older age and being female were linked to better survival. Smokers, both current and former, had a higher risk of death, while South Asians and Blacks tended to live longer than other ethnic groups.

Surprisingly, higher systolic blood pressure (>130 mmHg)(2) was linked to a lower risk of death, though higher diastolic blood pressure was linked to slightly higher risk of death.

Importantly, missing blood pressure data, both systolic and diastolic significantly increased the risk of death. These findings consistently show important factors that impact survival.

NEXT STEPS

- Including blood pressure measured at different stages of follow up.
- Taking into account frailty and comorbidity.

REFERENCES

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