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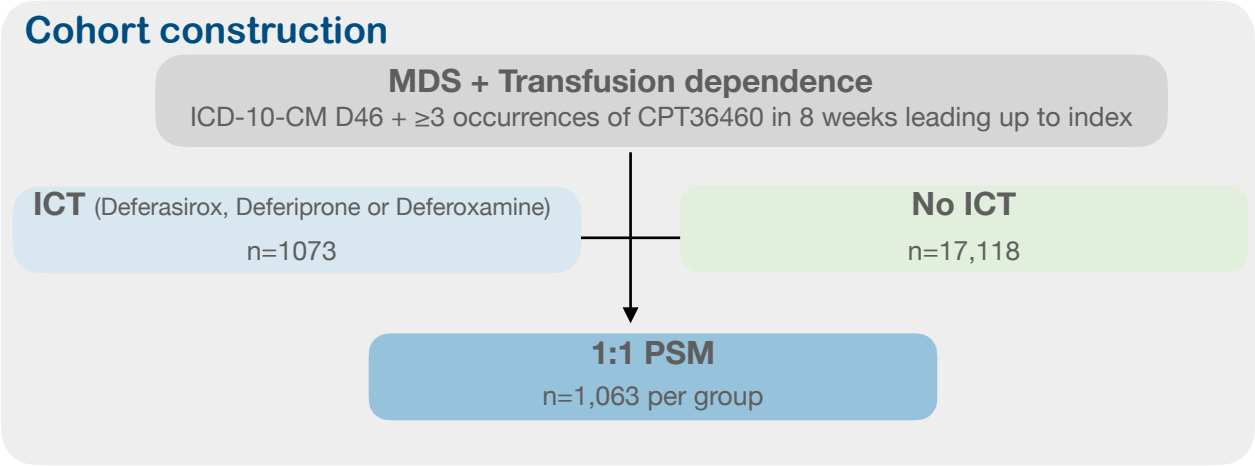
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BACKGROUND AND METHODS

- Study context
- Transfusion dependent MDS patients are predisposed to iron overload as a known complication

-Iron chelation therapy (ICT) offsets downstream effects of iron overload

-Long-term impact of ICT on cardiac, hepatic, renal, infectious, leukemic transformation and survival outcomes remain incompletely characterized
- Clinical question
- Does iron chelation therapy significantly improve clinical outcomes in transfusion dependent MDS patients?
- Study design
- Retrospective cohort study using the Trinetx US collaborative network with 1:1 propensity score matching using 32 baseline characteristics



- PSM Covariates
- Age

• Sex

• Race

• Frequency of transfusions

• Baseline heart disease

• Chronic liver disease

• Cardiovascular risk factors

• Chronic kidney disease

• Laboratory indices including baseline hemoglobin
- Outcomes studied
- Heart failure

• Myocardial infarction

• Atrial fibrillation/flutter

• Chronic liver disease

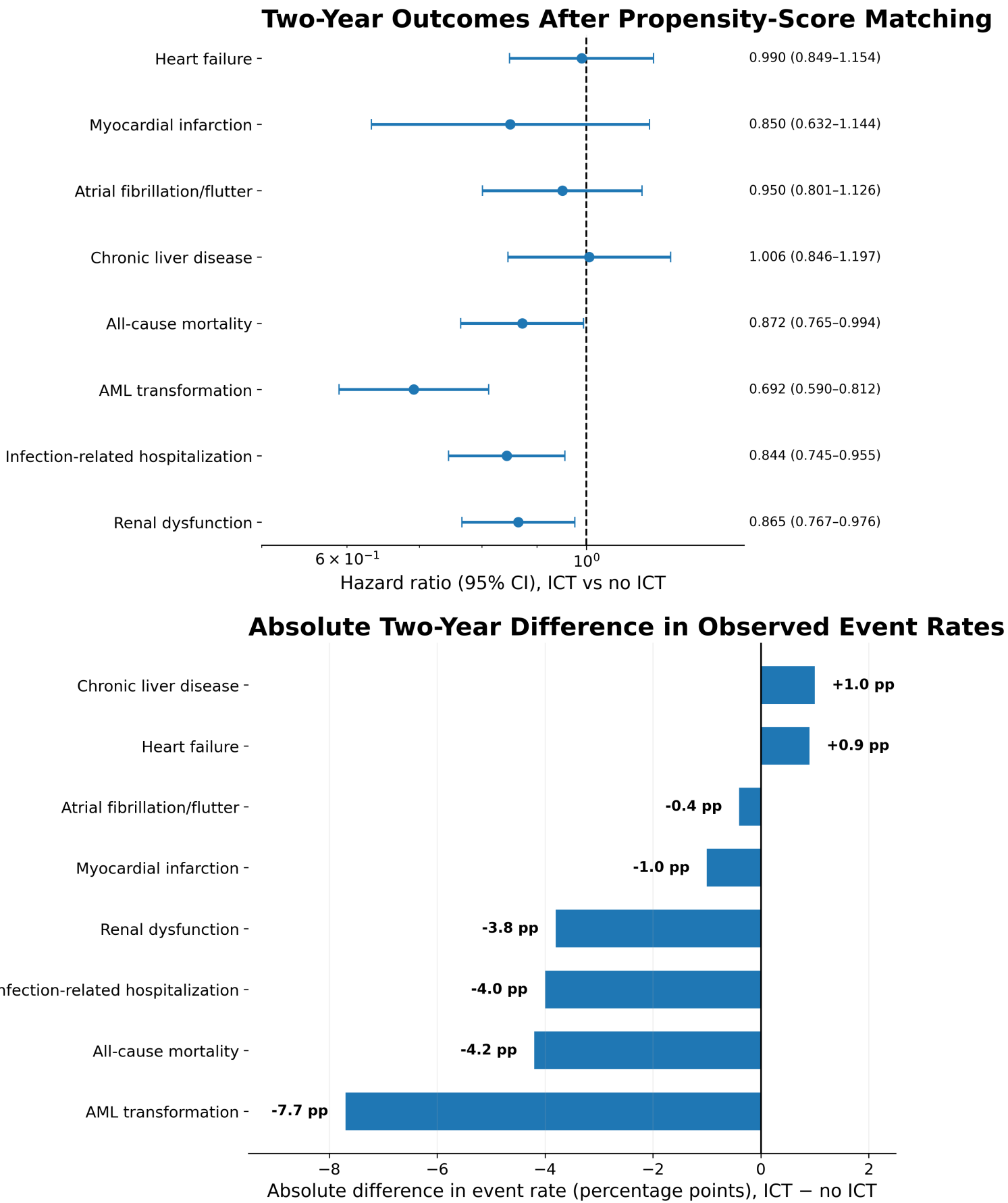
• All cause mortality

• Renal dysfunction

• AML transformation

• Infection related hospitalization

RESULTS



INTERPRETATION

- What this study adds
- The strongest association was seen for AML transformation (HR 0.692; 95% CI 0.590–0.812).

• Mortality, infection-related hospitalization, and renal dysfunction were also lower with ICT.

• Cardiac and hepatic outcomes did not differ significantly between groups.
- Clinical Implications
- This real-world data supports further prospective evaluation of ICT in appropriately selected, transfusion-exposed patients with MDS

• These results suggest that suggest that potential benefits of ICT may extend beyond prevention of cardiac and hepatic iron-related complications
- Study limitations
- Retrospective observational design limits causal inference

• TriNetX analyses rely on coded clinical data and may be affected by residual confounding.

KEY TAKEAWAY

REFERENCES

