



Hypertension and Its Associated Complications: A Thai Real-World Clinical Cohort

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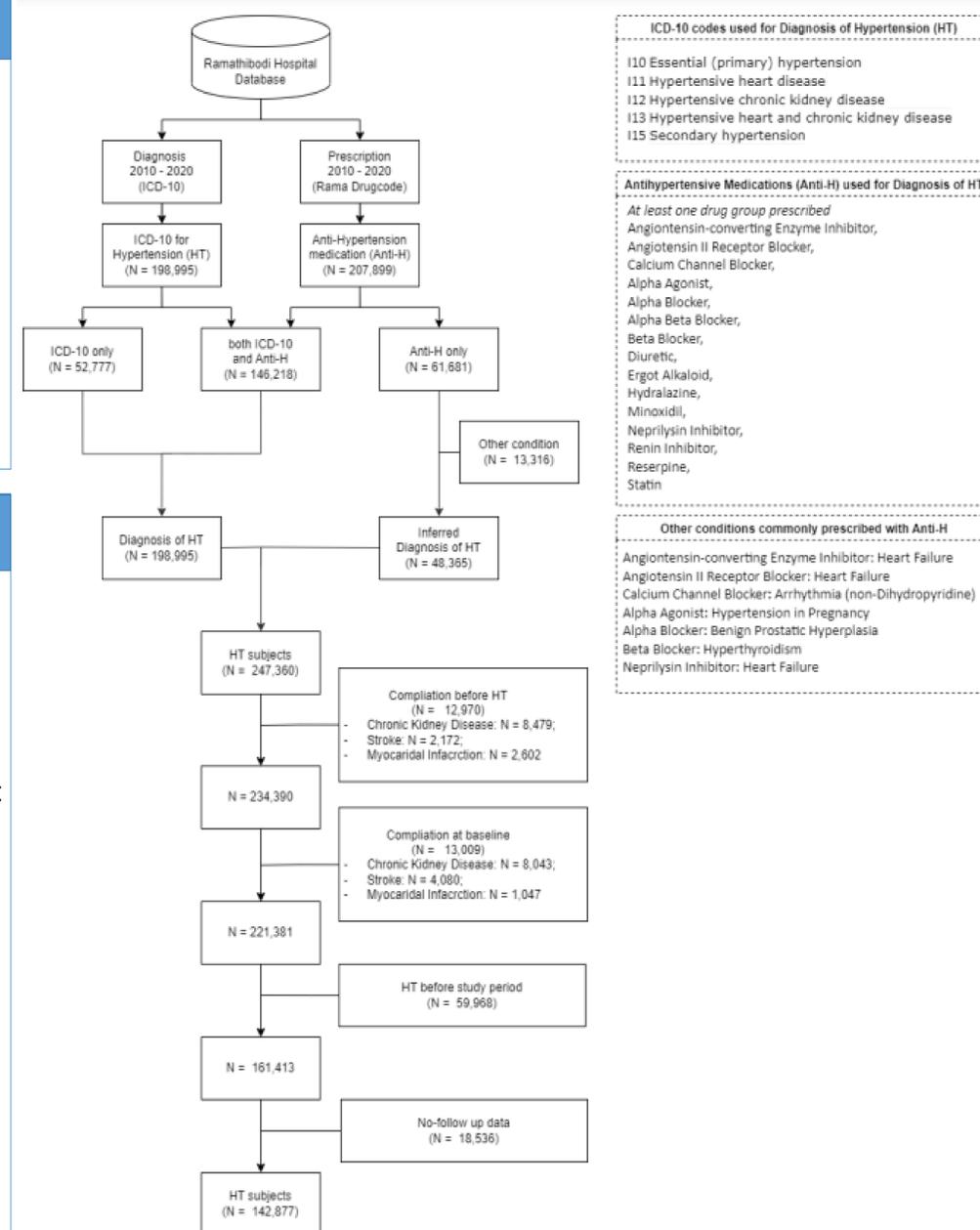
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Objectives:

The hypertension (HT) cohort was built from Thai real-world data to estimate the transition probabilities of HT complications. Improving understanding of the condition and its progression or transition to other conditions will assist appropriate, effective treatment strategies.

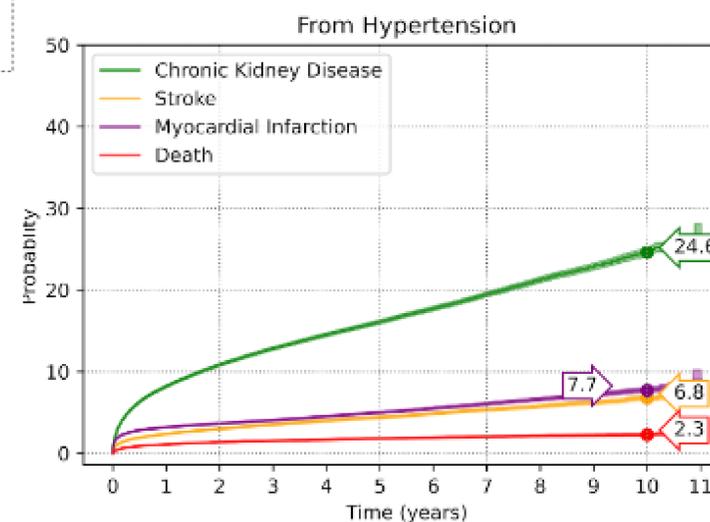
Methods:

Routine clinical practice data from Ramathibodi Hospital, Bangkok, Thailand between 2010 and 2020 was retrieved and built a cohort for newly diagnosed HT adults. The studied complications of interest included chronic kidney disease (CKD), myocardial infarction (MI), stroke and all-cause mortality. Ten-year transition probabilities for 12 transition pathways from complication-free HT to each complication state and transition from one state to another, were assessed as time to event by Kaplan-Meier estimates.



Results:

Of 142,877 newly diagnosed HT cases, CKD was the most observed complication at the incidence rate of 6.15/100 patients/year (95% confidence intervals [CI]: 6.08-6.22). HT subjects with CKD subjects had greater risk of developing MI and stroke than those without at 10-year transition probabilities (95% CI) of 24.8 (23.1, 26.6) and 7.7 (7.4, 8.0), respectively. MI has the highest 10-year probability of mortality at 15.9 (14.6, 16.9) compared to 8.8 (7.4, 10.4) for subjects with stroke, and 6.5 (5.5, 7.8) for those with CKD.



Conclusion:

Forming a large real-world data cohort provided transition probabilities which will help identify associated prognosis and be able to apply further in an economic evaluation study.