



Electronic Therapeutic Guidelines (eTG): Compliance and outcomes in the management of heart failure across Queensland

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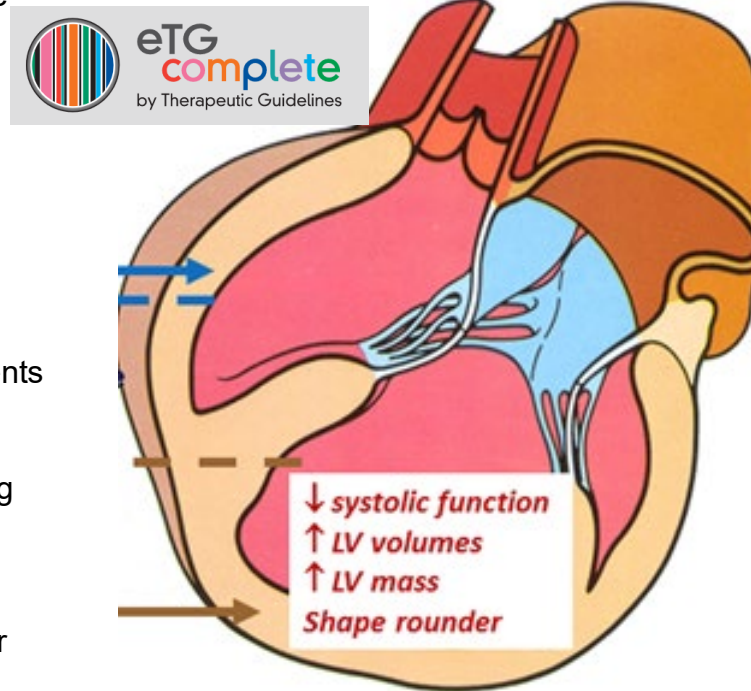
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Introduction

- Cardiovascular diseases (CVD) are the leading cause of death & disability in Australia. Queensland is Australia's CVD hotspot.
- Electronic Therapeutic Guideline (eTG) provide contemporary, evidence-based care services
- We examine the effects of eTG compliance on health outcomes of patients with heart failure with reduced left ventricular ejection fraction (HFrEF)

Methods

- Retrospective record linkage study of 135,399 patients in Queensland during the 2010-2015 period.
- Adherence to eTG in HFrEF management was defined as the prescription of angiotensin-converting enzyme inhibitors, angiotensin II receptor blockers, beta-blockers, aldosterone antagonists and angiotensin-receptor neprilysin inhibitors.
- The selected outcome is mortality by cardiovascular diseases.
- Parametric survival estimator was applied to examine the relationship between the compliance to eTG and mortality risk.



Results

- On average, 94.4% of heart failure admissions were managed in compliance with the eTG.
- Lower compliance among hospitals located in remote (OR=0.67, $p<0.01$) and very remote (OR=0.1, $p<0.01$) regions compared to those located in major cities.
- Compliance with eTG was associated with a significantly lower mortality risk (OR=0.87, $p<0.01$).
- Other mortality-risk factors include sex (male: HR=1.10, $p<0.01$), ethnicity (Indigenous: HR=1.21, $p<0.01$) and age (OR=1.01, $p<0.01$).
- However, eTG compliance was associated with higher odds of 30-day readmission (OR=1.09, $p<0.01$).

Conclusions

- Queensland public hospitals mostly complied with the eTG in the management of HFrEF.
- The compliance with eTG was associated significantly with lower mortality risk of patients.
- Policymakers should continuously monitor and evaluate the compliance to eTG in healthcare delivery.