Methods: Data were extracted from 200 of the 213 papers included in the Guidelines, (excluding the 13 in the preamble).

Results: Of the 200 papers, 65% were primary sources, 18.5% were secondary sources and 15.5% were other sources. 69.5% mentioned sex/gender. Representativeness of the sample. Of those reporting the total number of participants enrolled, 50.5% reported % of women. 76% of studies reported sex ratio/% for the analytic sample. Representativeness in analytic approach. Of the papers with primary data sources, <1% included a statement of a priori power to detect sex specific outcomes. Of all papers (including meta analyses), 49.5% included a statement of a priori power to detect sex specific outcomes. Of the papers with primary data sources, <1% reported sex disaggregated data for exposure of interest, 18% reported sex disaggregated data for outcome of interest, and 22.5% used sex used in analytic models.

Conclusion: Fewer than 2 in 10 studies included in the current ACS clinical guidelines reported sex-specific outcome data and less than 1% reported they were powered to do so. The lack of sex-specific evidence illustrates the urgent need for greater investment in CV research and funding, and publication policies that help to address these gaps.

Reference

Existing Models to Assess Perioperative Cardiac Risk: Demonstrate Poor Predictive Validity in Patients Undergoing Liver Transplantation

B. Caike1,∗, A. Koshy1, J. Ko1, H. Han1, H. Lim1, A. Teh1, L. Weinberg3, A. Testro2, P. Gow2, O. Farouque1

1 Department of Cardiology, Austin Health and The Alfred, Melbourne, Australia
2 Victorian Liver Transplant Unit, Austin Health, Heidelberg, Australia
3 Department of Anaesthetics, Austin Health, Heidelberg, Australia

Background: Liver transplantation (LT) is associated with risk for perioperative cardiovascular events. Although guideline recommended risk scores are well validated in non-cardiac surgery, there is uncertainty regarding their utility in LT.

Methods: Consecutive adult patients undergoing LT at the Victorian Liver Transplantation Unit between 2010 and 2017 were evaluated. Perioperative 30-day major adverse cardiovascular events (MACE) and all-cause death were recorded from a prospectively maintained transplantation database and supplemented by electronic medical record review. Perioperative risk for each patient was calculated using the Revised Cardiac Risk Index (RCRI), Charlson Comorbidity Index (CCI) and American Society of Anaesthesiologists Score (ASA) and subsequently assessed for predictive validity.

Results: Among the 704 adult patients that underwent workup for LT, 462 proceeded to transplantation (mean age 52±13, 67.5% male). A total of 51 (11%) patients had perioperative MACE within the 30-day post-operative period. Events included 26 episodes of cardiac failure, 15 resuscitated cardiac arrests, 16 acute coronary syndromes and 10 episodes of ventricular tachycardia. Predictive capability of the assessed scores is reported in Table 1. The risk predictive ability of the RCRI, CCI and ASA scores were low, with all reporting an area under the curve (AUC) <0.60. A high risk score, as defined by guideline recommendations, demonstrated a modest negative predictive value (NPV) and a low positive predictive value (PPV).

Conclusion: Current preoperative risk prediction algorithms have poor predictive ability for cardiac events in a contemporary cohort of LT patients. Better risk prediction algorithms in this group of patients are warranted.

![Extended Release Oral Milrinone for the Treatment of Heart Failure with Preserved Ejection Fraction](http://dx.doi.org/10.1016/j.hlc.2019.06.383)

Extended Release Oral Milrinone for the Treatment of Heart Failure with Preserved Ejection Fraction

S. Nanayakkara1,2,∗, M. Byrne3, V. Mak1, K. Carter1, D. Kaye1,2,3

1 The Alfred, Melbourne, Australia
2 Baker Heart and Diabetes Institute, Melbourne, Australia
3 Monash University, Melbourne, Australia

Background: Heart failure with preserved ejection fraction (HFpEF) is an increasingly prevalent form of HF, representing approximately half of the total burden of HF. In contrast to HF with reduced EF, no therapies have been proven effective at improving outcomes and quality of life to date.

Objectives: We hypothesised that modulation of the PDE-III using a novel oral formulation of milrinone might exert favourable effects HFpEF via pulmonary and systemic vasodilation and enhancement of ventricular relaxation. We assessed the safety and efficacy of oral milrinone on quality of life and functional outcomes in patients with HFpEF.

Methods: The MilHFPEF study was a randomised, double blind, placebo-controlled pilot study in patients with symptomatic HFpEF. Efficacy endpoints included changes from baseline in KCCQ summary score and 6-minute walk distance.

![Exhibit](http://dx.doi.org/10.1016/j.hlc.2019.06.383)
Results: A total of 23 eligible patients completed the study. The KCCQ score improved significantly in milrinone treated patients compared to placebo (+10 ± 3 vs −3 ± 15, p = 0.046). 6MWD also tended to improve in the treatment group compared with placebo (+10 ± 62 vs −42 ± 77, p = 0.092). Heart rate (−1 ± 5 vs −2.8 ± 9.8 bpm, p = 0.9) and systolic BP (−3 ± 17 vs +1 ± 32mmHg, p = 0.57) were unchanged. E/e’ (−0.3 ± 3.0 vs. −1.9 ± 4.8, p = 0.38) was unchanged. One patient in the placebo arm was hospitalised for HF. Holter monitoring did not demonstrate a pro-arrhythmic effect of milrinone.

Conclusion: In this novel pilot study, extended release oral milrinone was well tolerated and associated with improved quality of life in patients with HFpEF. Further longer-term studies are warranted to establish the role of this therapeutic approach in HFpEF.

References


http://dx.doi.org/10.1016/j.hlc.2019.06.385

Gender Disparities in Safety Outcomes After Pharmacoinvasive Strategy for ST Elevation Myocardial Infarction: A Four Year Analysis in Two Regional Centres

P. Bamford1,2, L. Zhou3, S. Eaves4, M. Parkinson2, S. Cheruvu5, C. Said2, J. Coglan6, R. Spina7, A. Kull7

1 University Of Newcastle, Newcastle, Australia
2 Central Coast Local Health District, Wyong and Gosford, Australia

Background: Pharmacoinvasive (thrombolysis) strategy at one year is non-inferior to primary percutaneous coronary intervention (pPCI) in patients with ST elevation myocardial infarction (STEMI) who are unable to undergo pPCI within one hour. In Australia, women with STEMI are less likely to receive invasive management, revascularisation, or preventive medication.

Methods: All patients presenting with STEMI who were thrombolysed or underwent pPCI at two regional centres were included from 2014 to 2018. The co-primary safety outcomes were major bleeding and all-cause mortality at 1 month.