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including a patient action plan, available from <https://nps.org.au/heart-failure>

**Conclusions:** We have developed a national collaborative Heart failure program to improve the implementation of clinical guidelines. Evaluation will include measurement of medium- and long-term outcomes. These include: i) changes to GP knowledge, confidence and prescribing behaviour including alignment with guideline performance measures (e.g. use of guideline recommended medicines, achievement of target doses and use of recommended tests; ii) health literacy on heart failure; iii) patient adherence to heart failure medicines; and iv) hospital readmissions and mortality.

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### In COVID Times, Don't Forget Influenza — A Case of Influenza-A Associated Cardiomyopathy



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**Background:** Influenza infection predominantly results in respiratory symptoms but has been reported to cause a wide range of cardiovascular complications. With the current ongoing severe acute respiratory syndrome coronavirus SARS-CoV-2 or COVID-19 pandemic and its similar clinical presentation to influenza, it is easy to overlook influenza which sometimes can have equally serious cardiovascular complications.

**Case:** A 61-year-old man with no previous medical illnesses presented with flu-like symptoms and was diagnosed with Influenza A on respiratory viral polymerase chain reaction (PCR). His chest Xray showed bilateral basal, patchy pneumonic changes. Rapid deterioration with cardiogenic shock and multi-organ failure necessitated admission to the intensive care unit for aggressive haemodynamic support and renal replacement therapy.

Echocardiogram showed moderate to severe global left ventricular systolic dysfunction and moderate to severe right ventricular dysfunction. There was also moderate functional mitral regurgitation. A coronary angiogram showed bystander severe disease in his left anterior descending artery and left circumflex artery disease. This was not the cause of his cardiogenic shock as his serial troponins were normal and serial ECGs showed only nonspecific inferior T wave changes and an adenosine sestamibi myocardial perfusion study showed no evidence of inducible myocardial ischaemia. Severe cardiomyopathy due to a fulminant influenza myocarditis was identified.

Following resolution of acute illness, cardiac function improved to low normal (LVEF 49%) and almost complete resolution of his functional mitral regurgitation after 5 months of standard of care heart failure therapy.

**Conclusions:** Influenza-related cardiac complications vary from asymptomatic subclinical myocarditis to profound cardiac dysfunction including atrioventricular blocks, cardiac failure, and death. Physicians should have a heightened

awareness to screen for these complications in the context of suggestive symptoms and positive cardiac biomarkers.

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This abstract has been withdrawn



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### Left Atrial Phasic Function Predicts NT-proBNP in Asymptomatic Community Patients at Risk for Heart Failure



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**Background:** Left atrial (LA) phasic function includes Reservoir, Conduit and Booster Pump functions. Although the correlation of N-terminal pro-B-type natriuretic peptide (NT-proBNP) with non-invasive estimates of left ventricular (LV) filling pressures has been well described, the relationship between NT-proBNP and LA phasic function has not been clearly elucidated.

**Objectives:** To analyse the relationship between indices of LA phasic function and NT-proBNP in subjects without a history of heart failure.

**Methods:** Indices of LA function (Reservoir, Conduit, and Booster Pump) were measured in 247 subjects (52% male, mean LV ejection fraction of 59±4%) from each NT-proBNP quintile within the SCREEN-HF cohort, following exclusion of atrial fibrillation, heart failure, bundle branch block, ectopy, regional wall abnormalities, moderate/severe mitral regurgitation, mitral stenosis, or poor image quality.

**Results:** All 3 indices of LA function were predictors of NT-proBNP, with LA Reservoir function the strongest ( $\beta$  coefficient -0.26, SE=0.006,  $R^2 = 0.244$ ). With increasing severity of diastolic dysfunction, NT-proBNP increased ( $p=0.04$ ), LA Reservoir and Booster Pump function declined ( $p=0.007$  and  $p<0.001$ ), without statistical variance in non-invasive estimate of left ventricular diastolic pressure, mitral E/e' ( $p=0.82$ ).

**Conclusions:** Subtle changes in LA phasic function may precede significant LA dilatation and elevations in LVEDP and contribute to NT-proBNP levels in subjects without a history of heart failure. The relationship between LA phasic