

CXR results, patient demographics and cardiac co-morbidities. NT-proBNP readings were graded into low (<400ng/l), intermediate (>400-<2000ng/l) and high risk(>2000ng/l) of left ventricular systolic dysfunction (LVSD) as per current guidelines. Statistical analysis was undertaken with IBM SPSS software.

Results A total of 180 patients comprised our analysis (exclusions included patients aged <18 and incomplete data). The mean age of patients was 67 (range 19–101). There was equal representation of both genders; 90 females and 90 males. The mean BNP value was 4407. 60 patients had values of <400ng/L, associated with a low probability diagnosis of heart failure, 51 with an intermediate risk and 79 with a high risk (value >2000ng/L). 110 tests (61%) were performed on inpatients. The NT-proBNP range was 30–79811ng/L, mean 5915ng/L. Of this cohort 24.5% had a low probability BNP value. The negative predictive value of inpatient BNP testing corresponding to preserved systolic function was 0.89. Of the remaining 75.5% of patients with a raised NT-proBNP (>400), 45% had evidence of LVSD on echocardiography. 70 NT-proBNP tests were performed on outpatients. The mean value was 2038 ng/L. Of this group 47% had a low probability BNP value. Of the 53% of patients with intermediate and high risk NT-proBNP values, 16 (43%) had imaging evidence of LVSD. Pearson's correlation coefficient was calculated at 0.970 with a significance of <0.001 for the relationship between inpatient and outpatient testing of low-risk NT-proBNP values.

Conclusion 1. In both primary and secondary care settings NT-proBNP testing can reduce the demand on cardiac echo services for evaluating suspected LVSD patients. 2. NT-proBNP testing in primary care is more effective than in secondary care at identifying patients who do not require echo for LVSD evaluation. 3. Pathways should be developed advocating greater use of natriuretic peptides in the hospital setting to aid diagnosis and triage of patients who need to be assessed for suspected HF.

Conflict of Interest Nil

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AN UNUSUAL PRESENTATION OF CARDIOGENIC SHOCK SUCCESSFULLY MANAGED WITH MECHANICAL CIRCULATORY SUPPORT

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Introduction Cardiogenic shock is a pathophysiologically complex and phenotypically diverse clinical syndrome, at the most severe end of the acute heart failure spectrum. Left untreated may lead to multi-organ dysfunction and thus carries very high mortality. Mechanical circulatory support has an evolving role in the management of refractory cardiogenic shock. Challenges remain in the early recognition of the syndrome and timely initiation of treatment, thus specialist shock teams have been developed mainly in the context of acute myocardial infarction cardiogenic shock. Limited evidence exists to support the use of veno-arterial extra-corporeal membrane oxygenation (VA-ECMO) in the context of cardiogenic shock due to drug toxicity, mainly in the form of case reports and case series. We present a case of cardiogenic shock due to drug toxicity, and demonstrate how early recognition and activation

of the shock team, timely initiation of VA-ECMO can act as a bridge to recovery and lead to good outcomes in acute heart failure. **Case Report:** A 43-year-old woman presented to the Emergency Department, after ingestion of a mixed intentional overdose of olanzapine, mirtazapine, and diazepam. At presentation she was alert and sinus tachycardia was the only abnormal physical finding. Within 3 hours her Glasgow Coma Score fell to E4M5V1 and she was noted to have ocular clonus, left gaze nystagmus and developed tonic-clonic seizure activity, requiring intubation. Echocardiography revealed severe biventricular failure and subsequently developed ventricular tachycardia with haemodynamic compromise. She received electrical cardioversion, intravenous calcium chloride and sodium bicarbonate, and reverted to sinus tachycardia. She remained dependent on vasopressor and inotropic support, with a rising lactate and was referred to our cardiac centre shock team for consideration of VA-ECMO. High dose insulin with dextrose was administered as per National Poisons Centre. Following a trial of milrinone to minimal effect, she was commenced on VA-ECMO.

Results In the first 24 hours she was weaned from inotropic support, her lactate normalised, and LV function improved to 35% on echocardiography. On day 3 she was decannulated and had a normal echocardiogram the following day. She was stepped down to ward level care on day 7 and discharged home on day 15. At post discharge follow up she was at her baseline physically and had improved mental health.

Conclusion The rapidity of her cardiovascular collapse highlights the need for careful monitoring of these patients, even when clinically stable initially. It also highlights the need for the development of dedicated shock teams and communication pathways for early consideration of mechanical cardiovascular support as a bridge to recovery. Reflecting other case reports, despite severely impaired ventricular function, only a short run of VA-ECMO was necessary and resulted in good recovery.

Conflict of Interest None

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SAFETY AND EFFECTIVENESS OF ACUTE HEART FAILURE CARE AS OUTPATIENT (SAFE): A META-ANALYSIS OF STUDIES COMPARING OUTPATIENT BASED MANAGEMENT WITH STANDARD INPATIENT CARE

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Introduction Patients with acutely decompensated heart failure (ADHF) are usually admitted to hospital for management. However, there is growing interest in delivering IV diuretic therapy at home, in the community or in hospital day-care units. The safety and effectiveness of out-patient based management (OPM) for ADHF has not been established. Accordingly, we conducted a systematic literature review and meta-