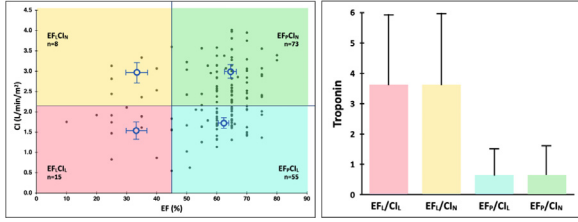




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233

**Quality Of Work-Life Among Advanced Practice Nurses Who Care For Patients With Heart Failure: The Effect Of Resilience During The Covid-19 Pandemic**

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**Introduction:** Heart failure (HF) prevalence continues to rise while therapeutic options expand in complexity. Advanced Practice Registered Nurses (APRNs; Nurse Practitioners & Clinical Nurse Specialists) manage high burden, complex care of patients with HF. During the COVID-19 pandemic, clinician burnout, stress and job dissatisfaction have likely impacted quality of life (WR-QoL). No studies describe burnout and resilience in APRNs who provide care to individuals with HF. **Aims:** Among APRNs who work with patients with HF, three aims include: 1) Describe the level of burnout and WR-QoL; 2) Determine the relationship between burnout and QOWL variables; 3) Examine whether resilience moderates the association between WR-QoL and burnout. **Methods:** This descriptive correlational study employed an online survey in October, 2020 to APRNs who were members of the American Association of Heart Failure Nurses and the HFSA. Inclusion criteria: APRN's who practiced in cardiology clinics, advanced HF clinics, inpatient cardiology units, or HF home care programs, at least 8 hours weekly. Exclusion criteria: Exclusively pediatric, administrative, educational, or research-focused APRNs. Outcomes measured: Burnout (Copenhagen Burnout Inventory), WR-QoL (Work-Related QoL Scale), and Resilience (Brief Resilience Scale). Institutional review board approval and written consents were obtained. **Results:** Participant (N=101) mean age was 50 (±10) years, 93% identified as female, 96% White, and 70% were master's prepared. Mean weekly worked hours were more than 42 and the majority of APRNs (n=75) represented community and academic health centers. APRNs reported high levels of personal (M= 51.7, norm-referenced mean: 35.9) and work-related burnout (M=50.1, norm-referenced mean: 33.0) with significant correlations between high levels of burnout and low WR-QoL (r range: -.74 — -.39 -, p<.001). APRNs who reported medium or high resilience showed negative relationships between burnout and general well-being (r = -.64, -.76, respectively, p<.001), while the low resilience group showed no relationship. Additionally, APRNs who reported no/low or work-related burnout showed a positive relationship between resilience and general well-being (r = .57, p<.001), while the moderate and severe burnout groups did not. **Conclusion:** We found that the positive effect of resilience on general well-being decreased as work-related burnout went up, indicating the moderating role of work-related burnout. The unanticipated finding that the negative burnout-QOWL relationship was stronger with higher resilience requires more exploration. It is especially critical now, given the emphasis on supporting clinician well-being and preventing burnout, for us to better understand the role of resilience and burnout in well-being.

234

**Reds Lung Fluid Monitoring For Assessing Lung Disease In Patients With Covid-19 Infection**

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**Background:** Clinical manifestation of COVID-19 infection vary from asymptomatic to severe ARDS pneumonia. Chest CT is highly sensitive in detecting lung injury due to COVID-19, but is not routinely used for serial monitoring. ReDS™ is an FDA-approved, non-invasive measurement tool for monitoring lung fluid content in HF patients (normal values ranging 20-35%). ReDS has proven to have excellent correlation with CT in

quantification of lung fluid and may have the potential to assess the severity of lung injury in patients infected with the SARS-CoV-2 virus. **Methods:** Cone Health is a six-hospital system in central NC. In March 2020, the previous Women's Hospital site was converted into a 120-bed (24 ICU/96 Medical) COVID hospital. In this prospective, feasibility, pilot study we used the ReDS Clip to evaluate whether it was possible to measure bilateral lung fluid status on a daily basis in qualifying patients with COVID-19 lung infection. Secondary endpoints included correlations between the daily ReDS measurements and standard markers of clinical status. Patients were excluded if they had an implantable cardiac device, did not meet BMI criteria, were in the ICU prior to enrollment or had physical/cognitive limitations that precluded obtaining accurate readings. **Results:** In May - June 2020, 83 patients who met the inclusion criteria were enrolled. The mean age was 56yr, 60% male. Medication regimen included 100% vitamin C and zinc, 72% steroids, 34% remdesivir, 39% tocilizmab. No patients received hydroxychloroquine. Over the 2month study period, 78% (65/83 patients) were able to receive daily ReDS measurements. Four patients missed 1 or 2 readings during hospitalization due to oxygen saturations dropping or too weak for minimal movements in bed to place the ReDS Device. Eight patients refused to continue study after 1 reading due to weakness or shortness of breath. ReDS readings were held during ICU stay. Six patients (7.2%) were moved to ICU, of which two patients died (33%). For the studied cohort, six patients (7.2%) died during evaluation. Only 2 patients had a documented history of heart failure. For the entire cohort, the average ReDS reading was 37%. Patients with higher supplemental oxygen demand (O2 > 5 L/min or need for BIPAP) had higher ReDS readings than patients with low oxygen demands, ReDS 43% vs ReDS 35%. Patients who were referred to ICU had higher ReDS readings than patients who were discharged home, ReDS 47% vs ReDS 37%. **Conclusion:** In this single-center feasibility study, ReDS lung fluid was able to be measured on a daily basis in 78% of the hospitalized study cohort. ReDS measurements correlated with then need for higher levels of O2 supplementation and worsening clinical status in patients with COVID-19 lung infection. More research is warranted to determine if daily monitoring with this technology can assist in early prediction of disease trajectory.

235

**Satisfaction With Access To Health Services In West Virginia Despite Covid-19**

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**Introduction:** Centers for Disease Control and Prevention reported COVID-19 significantly impacts health services for chronic health conditions including patients with cardiovascular disease. This study was conducted as an immediate follow-up on study participants who enrolled in the heart failure (HF) clinical trial (1R15NR018547-01) testing home palliative care coaching for patients with HF and their family caregivers in rural Appalachia. **Hypothesis:** COVID-19 impacts HF patients and their caregivers' (1) overall quality of life (QoL) and health satisfaction, and (2) access to health care and community services. **Methods:** This is a descriptive study conducted between August 2020 to March 2021, using a structured telephone survey with open-ended questions. The questions include demographic queries, frequency of health services use, overall quality of life and health during social distancing and the COVID-19 pandemic. **Results:** Of 13 participants enrolled in the study, the majority were white (85%) and married (61.5%). HF patients were predominantly male (83%), and caregivers were female (85.7%). The mean age of HF patients was 63 (SD=16.8) and family caregivers was 60.7 (SD=12.9) years. Twenty-three percent of participant couldn't financially make ends meet, while another 23.1% reported having barely enough. On a scale of 1-5, the patients were satisfied with their overall QoL (Mean = 3.83 (SD=1.17)), but half of caregivers reported average and poor QoL (Mean = 3.17 (SD=0.98)). However, 70% of caregivers were satisfied with their health (Mean=3.71 (SD=1.25)), while half of the patients reported neutral satisfaction or dissatisfaction with their health (Mean=3.17 (SD=0.98)). All patients were able to attend in-person appointments. Notably, 50% of patients reported phone calls and 33% used telehealth for their appointments. A majority of patients reported calling (83%) and receiving calls (67%) from their doctors or nurses. The reasons for calls were related to health issues, lab reports, medications, and dose adjustments. Three patients reported emergency room (ER) visits and two had HF-related hospital admissions. One caregiver had an ER visit. Overall, a few participants (15%) used community services, including hospice and visiting nurses and found them useful. About 70% of participants reported sufficient healthcare, while one-third (30%) did not and reported difficulty in getting medications and rescheduling appointments after cancellation. **Conclusions:** COVID-19 has an impact on QoL and health of patients with HF and their family caregivers. These families need care coordination from their healthcare providers to maintain HF home care. Many families need