



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Figure:

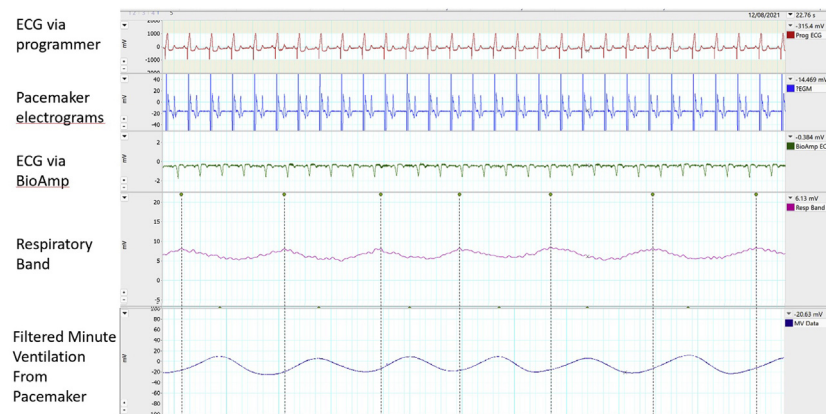


Figure 1: Measurement of normal breathing showing perfect breath-by-breath correlation between the minute ventilation data from the pacemaker with the respiratory band.

Complex ventilation measurements created by drinking/laughter could not be accurately analysed.

Conclusions: Pacemakers with impedance measures of respiration are highly accurate in their breath-by-breath measurements during exercise and with normal, slow, and fast breathing when compared to a gold-standard respiratory belt. Pacemaker impedance data could be used to re-establish RSA in patients with heart failure with the aim of improving cardiac function.

<https://doi.org/10.1016/j.hlc.2022.06.203>

202

Time Comparison and Patient Satisfaction of Car Park Clinics (CPCs) Compared to Face-to-Face (F2F) Clinics in the COVID-19 Pandemic

A. Enayati^{1,*}, C. McCormack¹, D. Chye¹, F. Munandar Putra¹, H. Lim^{1,2}, A. Teh^{1,2,3,4}

¹ Cardiology Department Austin Health, Heidelberg, Vic, Australia

² University of Melbourne, Parkville, Vic, Australia

³ Monash University, Clayton, Vic, Australia

⁴ Cardiology Department Box Hill Hospital, Box Hill, Vic, Australia

Background: In the COVID-19 pandemic, social distancing has been key in infection control. While remote monitoring of cardiac devices is an option, this is not suitable for all patients. Car park clinics (CPCs) may fill this gap. Patient satisfaction with CPCs and whether CPCs save time compared to traditional face-to-face (F2F) clinics is unclear.

Methods: Consecutive patients attending between September 2020 and November 2021 completed a questionnaire to assess satisfaction. Participants with experience of F2F clinics were asked to compare services. CPC entry and exit time were recorded by staff. For F2F clinics, carpark to ward time was estimated by patients; waiting room time and device check were recorded automatically.

Results: Over the study period, 590 patients attended the CPC, and 272 completed a questionnaire with 176 responses completed for F2F clinic experience. Mean age was 78 ± 14 years. 90% of CPC patients reported being “happy” to “very happy” with their experience. Additionally, 96% reported feeling “safe” or “very safe”. Patients spent a significantly shorter total time in hospital for the CPC (17 ± 7 minutes) compared with the F2F clinic (56 ± 26 , $p < 0.001$) which comprised 33 ± 21 minutes device check and wait time and 22 ± 14 minutes return from car park to cardiac diagnostics ward. Of those who attended both F2F and CPC, 45% preferred CPC, 48% F2F and 7% had no preference. 2/590 patients required a F2F visit to make programming changes to their device. Of those attending face-to-face device checks, 59% walked independently, 10% used single-point sticks, 28% used 4-wheel walkers and 2% used wheelchairs.

Conclusion: CPC has excellent patient satisfaction, is a more time-efficient method compared to traditional F2F clinic models and appears safe.

<https://doi.org/10.1016/j.hlc.2022.06.204>