Impact of frailty on all-cause mortality or major amputation in patients with lower extremity peripheral artery disease: A meta-analysis, Zhang et al. *Ageing Research Reviews*, Volume 79 (2022)

DOI: https://doi.org/10.1016/j.arr.2022.101656

Level of Evidence: 2

Reviewer: Zaria St. Lawrence, MS-III

Barry University School of Podiatric Medicine

The objective of this study was to examine the role of the frailty as a method of predicting the mortality or major amputation in a patient with lower extremity peripheral arterial disease. To establish the impact of frailty on adverse outcomes, the researchers summarized frailty by combining the adjusted hazard ratio with a 95% confidence interval followed by using a DerSimonian-Laird model. Zhang et al. reviewed PubMed, Embase, Web of Sciences, and Scopus for relevant articles that examined the link between frailty and lower extremity peripheral arterial diseases. Of the search, eight articles were selected that involved a total of 122,892 patients.

After reviewing the eight studies, the research established the following conclusions:

- The most prominent limitation of the study is there is a lack of what is defined as frailty
- Frailty does not have a clear relationship with the likelihood of major amputation
- Frailty with lower extremity peripheral arterial disease increases the likelihood of a long-term all-cause mortality by 1.86-fold
- Patients with lower extremity peripheral arterial disease with frailty had their risk of 30-day mortality increase by 2.11-fold

This study reestablishes the increased risk that frailty does have an increased risk on both immediate and long-term mortality of the patients. It also states the need to standardize what frailty is defined as to increase the accuracy of any future studies.

