

Short and Long Term Outcomes of Patients Admitted with Unexplained Syncope Using a Simple Novel SELF-Pathway

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Background:

According to the design of our syncope pathway, patients are stratified twice using the acronyms SELF-A (Short period, Early-rapid onset, Loss of consciousness, Full recovery) and SELF-B (Structural heart disease, abnormal ECG, and arrhythmia Fib/FL). The purpose of this study was to assess the short and long-term outcomes of patients admitted with unexplained syncope using this approach.

Methods:

2920 patients were prospectively followed after presenting to our emergency department for the evaluation of syncope. Patients were divided into Group I (SELF +/+) who met both SELF A and B criteria and group II (SELF -/-) who did not meet these criteria. The primary endpoint was a composite of readmission for syncope, myocardial infarction (MI), stroke and death. Follow-up was 494 ± 120 days.

Results:

746 (26%) patients were included in group I and 960 (33%) patients in group II. Group I were older (73 ± 16 years vs. 59 ± 22 years); $p < 0.001$, with more evidence of hypertension (73% vs. 47%); $p < 0.001$, diabetes (26% vs. 18%); $p < 0.001$, heart failure (16% vs. 6%); $p < 0.001$, and coronary disease (26% vs. 12%); $p < 0.001$. During hospital stay group I underwent more procedures. At the end of 7, 30 and 180 days follow up, group I patients had 15 (2%), 45 (6%), 118 (16%) vs. 9 (0.9%), 24 (2%), 81 (8%) events respectively; $p < 0.001$.

Conclusions:

The SELF-pathway for patients presenting with syncope effectively identifies high risk patients who merit hospitalization for further work-up. This has important implications for the evaluation of a common disease that poses a significant economic burden on healthcare systems.