

# When early discharge after percutaneous coronary intervention is much too early

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Adv Interv Cardiol 2022; 18, 3 (69): 317–318  
DOI: <https://doi.org/10.5114/aic.2022.121957>

*The early bird catches the worm*  
William Camden

The recent preliminary study on feasibility of same-day discharge after percutaneous coronary intervention (PCI) published in *Polish Archives of Internal Medicine* seems to provide a clear and straightforward message – it is both safe and feasible [1]. While important given its scope, stance, and size, the results of this work are largely in line with several other studies that have been published so far [2, 3]. The COVID pandemic has certainly pushed the issue forward and created space for discussion [4].

A recent study by Rathod *et al.* has also given us observational evidence for a staggering reduction of hospital stay with a median of 24 h in ST-elevation myocardial infarction (STEMI) patients without any apparent additional short or long term risk for patients [5]. We agree clearly that early or same day discharge after PCI or even after primary PCI (PPCI) for STEMI in a preselected low risk group is possible and should be incorporated into clinical practice based on evidence and strict patient flow algorithms [6]. However, some questions naturally arise: what are we really pursuing with the results of such studies? Is ambulatory or drive-through PCI the next available (and desirable) scenario even though over 20% of patients initially scheduled for same-day discharge were disqualified in the discussed study [1]? Have we reached the reasonable discharge time window limit and is patient safety the only reason we keep them for a median of 2 days in a non-complicated PCI nowadays? Furthermore, while cost savings are apparent with same-day discharge,

the potential cost-effectiveness of such a strategy which involves telemonitoring and additional follow-up is yet to be determined, hopefully in a pragmatic randomized trial. Also the rationale for renal function testing after several days in potentially renal compromised elderly patients as well as no additional follow-up until day 30 from PCI needs scientific confirmation.

Notably, the major issue that early discharge unfortunately neglects is effective and comprehensive secondary prevention, encompassing the constellation of education measures [7]. When should they be implemented if the patient does not stay overnight and is discharged the same day? From a patient perspective this would seem like an ambulatory procedure with negligible risk with early mobilization (especially easier with the radial approach used in the majority of patients nowadays) that does not require that much attention and worry. Finally, what about pharmacological treatment that is initiated in such patients usually for the first time in their lives? There would be no time to titer the dosages and manage early adverse events.

In conclusion, the rationale for early discharge after PCI both in stable angina and acute coronary syndrome (ACS) patients should be further evaluated and tested scientifically, not only in terms of mid-term survival and clinical outcome benefit, but also focusing on social, educational and financial aspects before it is widely implemented.

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Received: 29.11.2022, accepted: 29.11.2022.

## Conflict of interest

Giuseppe Biondi-Zoccai has consulted for Balmed, Cardionovum, Crannmedical, Endocore Lab, Eukon, Innovheart, Guidotti, Meditrial, Microport, Opsens Medical, Replycare, Teleflex, and Terumo. All other authors report no conflict of interest.

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