

MORTALITY, LENGTH OF STAY, AND COST IMPLICATIONS OF PROCEDURAL BLEEDING AFTER PERCUTANEOUS INTERVENTIONS USING LARGE-BORE CATHETERS

[Redfors B et al. JAMA Cardiol. 2017;2\(7\):798-802.](#)

PURPOSE

- To evaluate the incidence of bleeding complications among patients who underwent percutaneous interventions using large-bore catheters.
- To assess the association of bleeding complications with increased risk in mortality and morbidity, length of stay, and increased health care costs.

METHODS

- Retrospective cohort study evaluating 17,672 patients who underwent transcatheter aortic valve replacement (TAVR), endovascular aneurysm repair (EVAR), and percutaneous ventricular assist device (PVAD) implant between January 1, 2012, and December 31, 2013.
- All patients were included in the Healthcare Cost and Utilization Project's National Inpatient Sample (NIS) database.
- Bleeding complication was defined as the need for transfusion, any hemorrhage or hematoma, or the need for reintervention.
- Health care costs were calculated by multiplying the total charge for each visit by the cost:charge ratios reported for each hospital code in the NIS database.

RESULTS

- About 18% (n=3,128/17,672) of patients experienced bleeding complications:
 - TAVR = 30.2% (n= 972/3,223)
 - EVAR = 13.4% (n= 1,697/12,633)
 - PVAD implant = 25.8% (n= 469/1,816)
- Patients who experienced bleeding complications were hospitalized more than three times as long as patients who did not (P<0.001) with healthcare costs being almost twice as high (P<0.001).
- Patients with bleeding complications had a three times greater rate of in-hospital mortality (P<0.001).
- Mortality risk, length of stay, and costs increased as the number of transfusions increased.

AUTHOR CONCLUSIONS

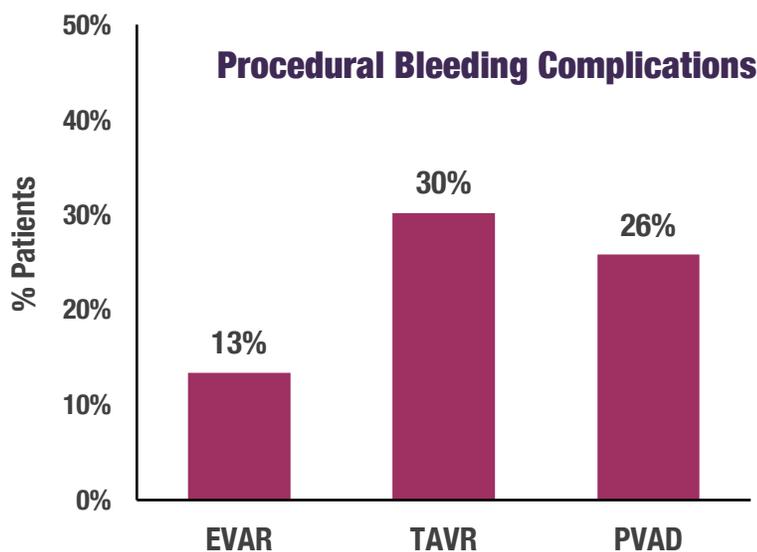
- Procedural bleeding complications are common among patients who undergo transcatheter interventions using large-bore catheters.
- Bleeding complications are associated with a significant increase in mortality, length of stay, and overall health care costs.

Indications for Use. The Early Bird is indicated for the introduction of catheters, catheter balloons, and other diagnostic and interventional devices into the femoral artery or femoral vein while maintaining hemostasis during diagnostic and interventional endovascular procedures.

Contraindications. There are no known contraindications for Early Bird.

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(Continued)



KEY POINTS

- Bleeding complications after percutaneous interventions using large-bore catheters are common and associated with poor prognosis and increased cost.
- Preventative and bleeding avoidance strategies, such as the early detection of bleeding events, are needed.

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