

IVC Filters

Trauma

Ho, K. M., Rao, S., Honeybul, S., Zellweger, R., Wibrow, B., Lipman, J., . . . Rogers, F. B. (2019). A Multicenter Trial of Vena Cava Filters in Severely Injured Patients. *New England Journal of Medicine*, 381(4), 328-337. doi:10.1056/NEJMoa1806515. This multicenter, RCT of severely injured trauma patients (ISS>15) with contraindication to anticoagulants compared those receiving IVC filter within 72 hours to those receiving no filter. Early prophylactic placement of a vena cava filter after major trauma did not result in a lower incidence of symptomatic PE or death at 90 days than no placement of a filter.

Hemmila, M. R., Osborne, N. H., Henke, P. K., Kepros, J. P., Patel, S. G., Cain-Nielsen, A. H., & Birkmeyer, N. J. (2015). Prophylactic Inferior Vena Cava Filter Placement Does Not Result in a Survival Benefit for Trauma Patients. *Annals of Surgery*, 262(4), 577-585. doi:10.1097/sla.0000000000000000. This MTQIP study examined the risk-adjusted rates of IVC filter placement on trauma patient outcomes. High rates of prophylactic IVC filter placement did not reduce trauma patient mortality and are associated with an increase in DVT events.

Fractures

Cohen-Levy, W. B., Liu, J., Sen, M., Teperman, S. H., & Stone, M. E., Jr. (2019). Prophylactic inferior vena cava filters for operative pelvic fractures: a twelve-year experience. *International Orthopaedics*. doi:10.1007/s00264-019-04384-0. This retrospective single-center before and after cohort study examined an institutional policy of prophylactic IVCF placement in all operative pelvic and acetabular fractures. The policy of increased use of prophylactic IVCFs in patients with operative pelvic and acetabular fractures failed to reduce the incidence of PE or DVT.

Stein, P. D., Matta, F., & Hughes, M. J. (2018). Prophylactic inferior vena cava filters in patients with fractures of the pelvis or long bones. *J Clin Orthop Trauma*, 9(2), 175-180. doi:10.1016/j.jcot.2017.09.018. This National Inpatient Sample study of low-risk fractures examined the benefit of prophylactic inferior vena cava filter use on mortality. Mortality was not reduced with prophylactic filters. The evidence is *against* the use of a prophylactic inferior vena cava filter in patients with non-complex fractures of the pelvis, fracture of the femur alone, or fracture of the tibia or fibula.