

Timely Surgical Hip Fracture Repair in Geriatric Trauma

Tanner Li, A., Jarvis, S., Orlando, A., Nwafo, N., Madayag, R., Roberts, Z., . . . Bar-Or, D. (2020). A three-year retrospective multicenter study on time to surgery and mortality for isolated geriatric hip fractures. *J Clin Orthop Trauma*, 11(Suppl 1), S56-s61. doi:10.1016/j.jcot.2019.12.001. This multicenter retrospective cohort study of 6 Level I centers compared n=1346 hip fracture outcomes by time of surgery grouped as early (≤ 24 hr) vs delayed (>24 hr). The results indicate that surgical delay is not associated with short or long-term mortality or in-hospital complications. However, a significant decrease in cost and HLOS was observed for early surgery.

Ozturk, B., Johnsen, S. P., Rock, N. D., Pedersen, L., & Pedersen, A. B. (2019). Impact of comorbidity on the association between surgery delay and mortality in hip fracture patients: A Danish nationwide cohort study. *Injury*, 50(2), 424-431. doi:10.1016/j.injury.2018.12.032. This Danish nationwide cohort study of 36,552 hip fracture patients found an association between surgery delay and 30-days mortality in hip fracture surgery patients with none and medium level of comorbidity. In contrast, no such association was observed among hip fracture patients with high comorbidity level. Surgery delay is associated with a one-year increased risk of dying in patients with and without comorbidity prior to surgery. Authors Key Take Away: The authors conclude that sicker patients may benefit from a delay to optimize their medical condition while there is no benefit for healthier patients to wait for surgery rather, there is the potential for increased complications and poor outcome.

Pincus, D., Ravi, B., Wasserstein, D., Huang, A., Paterson, J. M., Nathens, A. B., . . . Wodchis, W. P. (2017). Association Between Wait Time and 30-Day Mortality in Adults Undergoing Hip Fracture Surgery. *JAMA*, 318(20), 1994-2003. doi:10.1001/jama.2017.17606. This Ontario, CA multicenter population-based, retrospective cohort study of hip fractures demonstrated increased wait time to fixation was associated with a greater risk of 30-day mortality and other complications. Authors Key Take Away: Research to date routinely compares early with delayed surgery groups, which decreases statistical power to find differences. This study examined exact time-to-surgery data (in hours) to define a threshold for increased risk. It appears that a wait time of 24 hours may represent a key threshold defining higher risk because complications increased when surgery was delayed after this time, irrespective of the complication, follow-up period, or patient subgroup.