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## Background

- ❖ Surgical stabilization of rib fractures (SSRF) is a critical intervention to reduce morbidity in patients with severe chest wall injuries.
- ❖ Previous research has sought to characterize its impact on SSRF and outcomes.
- ❖ There appears to be increased length of hospital stay, risk of post-operative pneumonia, and VTE when compared to non-obese or obese non-operative patients.
- ❖ Numerous studies have documented that rib fractures in elderly patients, as compared to their younger counterparts, are associated with markedly increased morbidity and mortality.
- ❖ Poor outcomes following rib fractures in elderly patients are attributed to a combination of factors, including diminished physiologic reserve, increased prevalence of underlying comorbidities (cardiopulmonary and orthopedic in particular), increased use of anticoagulant/antiplatelet medications, and increased sensitivity to the side effects of analgesics, both systemic (e.g., narcotics and benzodiazepines) and loco-regional (e.g., thoracic epidural catheters).

## Rationale and Aim

- ❖ Studies including these patient populations reflect data prior to 2020.
- ❖ This review aims to separately examine outcomes in both obese and elderly patient populations given the continued advances in SSRF and specifically investigate potential improvement in time to surgical stabilization of rib fractures (SSRF), hospital length of stay (HLOS), post operative complications, and the surgical decision-making processes that can influence variations in care and outcomes.
- ❖ In particular we would like to investigate if obese and elderly patients time to surgery is delayed in any way due to surgeon bias.

## Method

This is a multicenter, retrospective analysis of de-identified data from the Chest Injury International Database (CIID), which belongs to the Chest Wall Injury Society (CWIS).

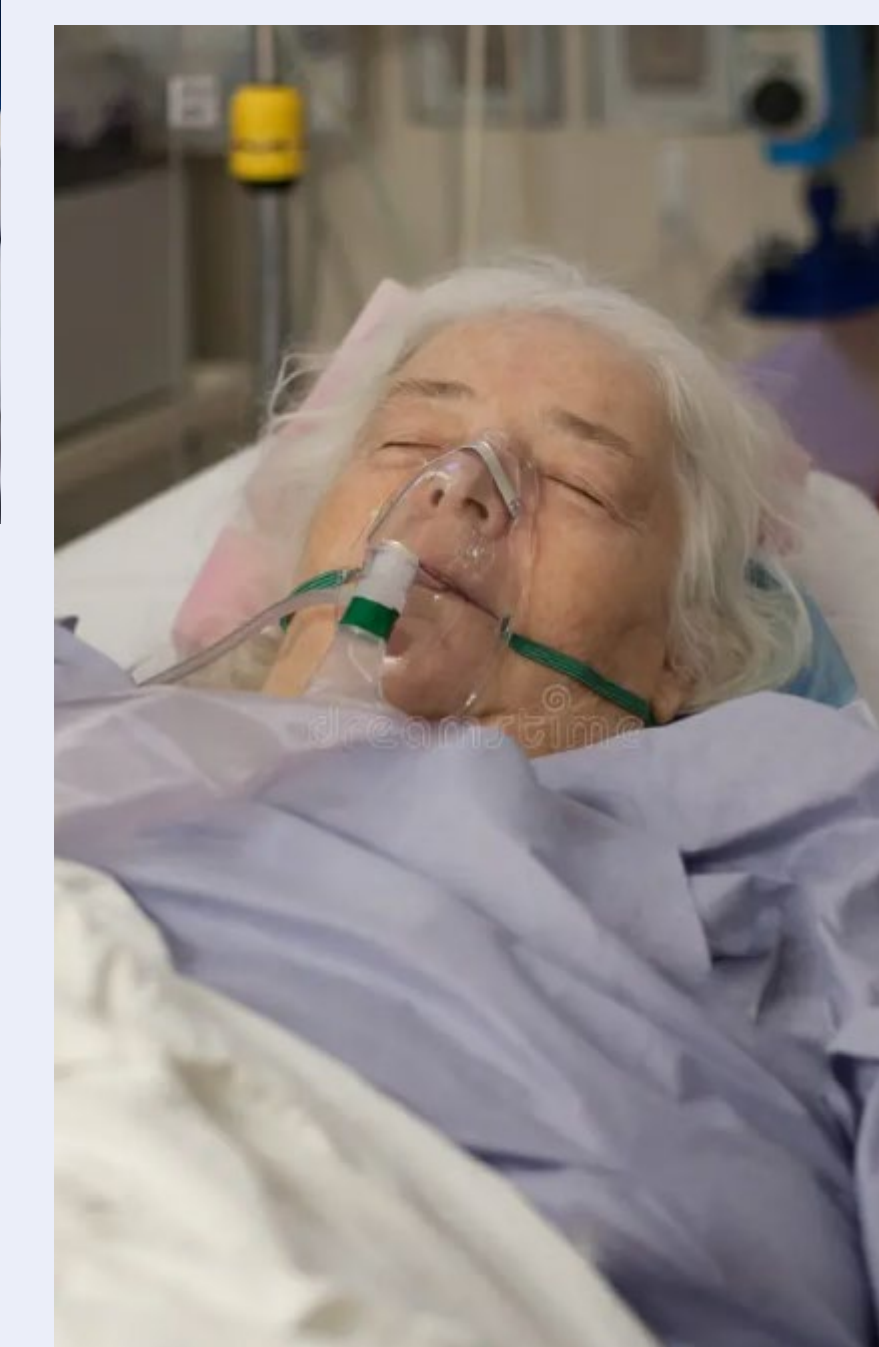
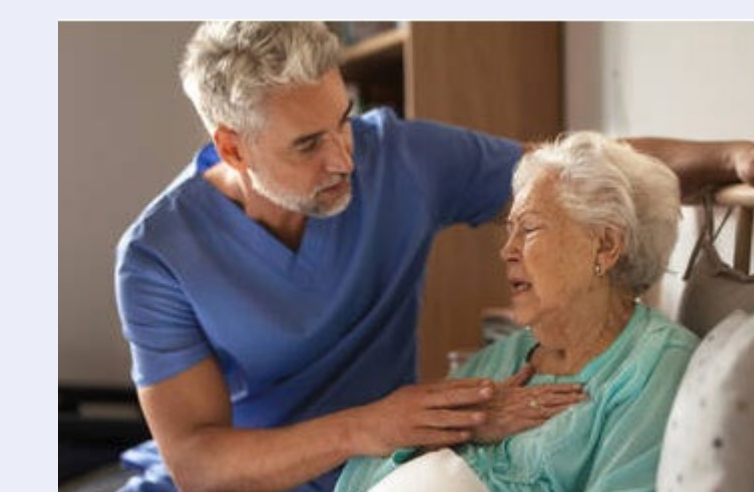
CIID is a HIPAA compliant cloud-based repository that was created and designed by the members of CWIS to support an international research effort among Chest Wall Injury Collaborative Centers of Excellence. **Saint Francis Hospital has been a Chest Wall Injury Collaborative Center of Excellence member since 2021.**

Data for this study will be collected on chest trauma cases entered into the CIID database from January 1, 2020, to December 31, 2024, from Level I Trauma Centers across the globe.

Examination of patients will be stratified by BMI. Non-obese (18.5-29), Class 1 obesity (30-35), Class II obesity (35-40) and Class III or severe obesity (>40). Underweight individuals <18.5 will be excluded.

## Project Status

This study is IRB approved and now open. Data acquisition and analysis are in process.



Google search: elderly, obese critical care patients