Objective/Hypothesis: There is no consensus regarding an operative definition of frailty. Through decreased physiologic reserve and resistance to stressors, frail patients are more vulnerable to poor health outcomes. This study aims to assess the predictive value of a frailty assessment tool on mortality in non-surgical and surgical head and neck (HN) patients. 


Methods: The Risk Analysis Index (RAI) is a previously-validated 14-item instrument. Inclusion criteria was either: 1) Visit with HN Surgical Oncology provider; 2) Surgery performed within 90 days of RAI assessment. Cox proportional-hazards models were utilized to associate RAI with mortality whereas Kruskal-Wallis tests were utilized to associate RAI with other variables. 

Results: 54 non-surgical patients (72.2% male) were identified (mean [SD]: age, 68 [11]yrs) of whom 18 (33.3%) died within the study period. 111 surgical patients (74.8% male) were identified (mean [SD]: age, 65 [12]yrs; surgery time, 7.7 [4.0]hrs) of whom 12 (10.8%) died. In patients who underwent major ablative or regional/free-flap reconstruction, there was a significant difference in frailty between primary (mean=32, range=10-59) vs. recurrent/persistent (mean=39, range=20-51) (p=0.002). Small deficits accumulate, together producing significant vulnerability to stress that can lead to catastrophic decompensation. 

Conclusions: Understanding frailty is critical for shared decision-making and avoiding low value interventions. 
- Examined more commonly in surgical HN cancer care. 
- This study highlights frailty is a significantly related to mortality in HN patients undergoing non-surgical management. 
- Death among non-surgical patients was 3x that of surgical patients, but only 3.7% of patients undergoing immunotherapy, chemotherapy, and/or radiotherapy received palliative care consultation. 
- There is a need for early palliative care and support in all advanced cancer patients at the time of diagnosis. 

RESULTS: Surgical Cohort (Top Panels), Non-Surgical Cohort (Bottom Panels)