

Inpatient Rehabilitation Trends in the Morbidly Obese Population



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Abstract

Hypothesis: To evaluate the hypothesis that inpatient rehabilitation patients with morbid obesity have lower Functional Independent Measure (FIM) gains, Longer Lengths of Stay (LOS), and less favorable discharge destinations than patient's without morbid obesity.

Design: Retrospective chart review.

Setting: Regional Rehabilitation Center in a Tertiary care center in Eastern North Carolina.

Participants: Patients admitted to acute rehabilitation center between January 2002 and November 2006 with morbid obesity as a diagnosis code (278.01). This group was compared to the population of patients admitted to the same rehabilitation center without morbid obesity as a diagnosis code.

Methods: All medical records of patients admitted to inpatient rehabilitation with a morbid obesity diagnostic code of 728.01 (n=383) were reviewed compared to medical records of patients without a morbid obesity code (n=5384). A simple t-test was used to compare the two groups.

Mean Outcome Measures: Admission FIM scores, discharge FIM scores, length of stay (LOS), FIM gain, Length of Stay Efficiency.

Results: The morbidly obese (MO) group had an Admit FIM Score of 66.8 and a FIM Gain of 17.96. The non-obese (control) population had an Admit FIM Score 64.02 and a FIM Gain 17.90. The MO group had an average LOS of 17 days and a LOS Efficiency of 1.08. The control group had an average LOS of 14 days and a LOS Efficiency of 1.25. Statistical analysis showed a significant difference in LOS (p =0.025) but no significant difference in FIM Gain.

Conclusion: Morbidly obese rehabilitation patients require a greater length of stay to achieve FIM gains comparable to that of the non-morbidly-obese population. The morbidly obese rehab inpatients had a greater rate of discharge to home, however, also had a greater rate of return to acute hospitalization as compared to the non-bariatric population.

Key Words: Obesity, Morbid, Rehabilitation

Examples of equipment used in our rehabilitation center:

Barimaxx, KCI bariatric equipment, Arycare lift, Hoover mat and Stretch Bariatric chair (SIZEWise Rentals, L.L.C.)



Barimaxx Bed (courtesy of KCI)



Bariatric Equipment (courtesy of KCI)



Arycare Lift (photo courtesy of AryCare)



Hoover Mat and Stretch Bariatric Chair (photo courtesy of SIZEWise Rentals, L.L.C.)

Study Hypothesis: Inpatient rehabilitation patients with morbid obesity (BMI >40) have lower Functional Independent Measure (FIM) gains, Longer Lengths of Stay (LOS), and less favorable discharge destinations than patient's without morbid obesity.

Design: Retrospective chart review.

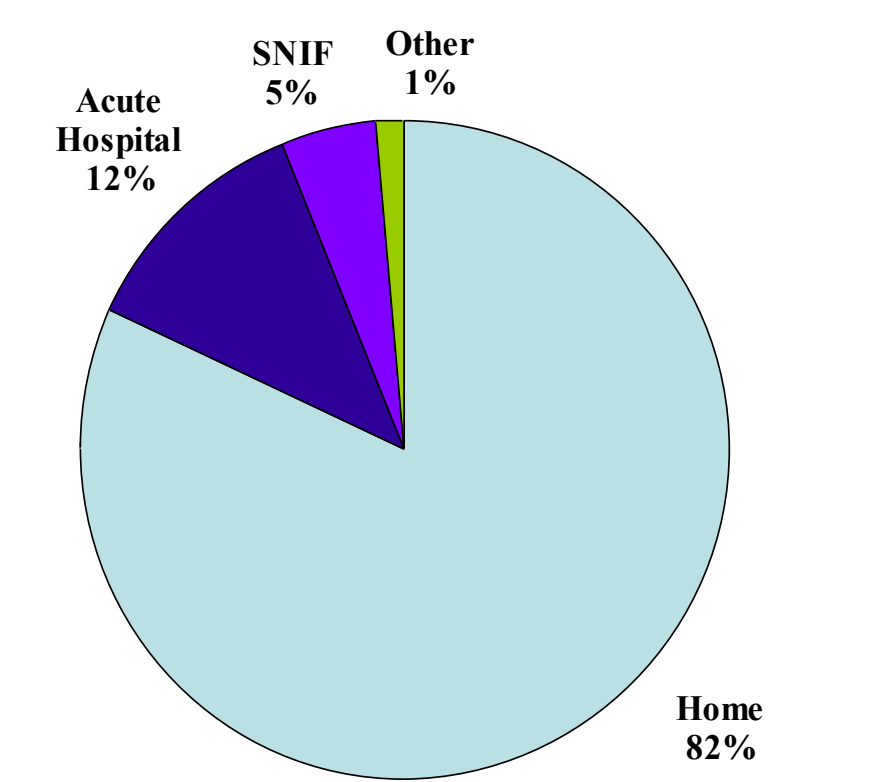
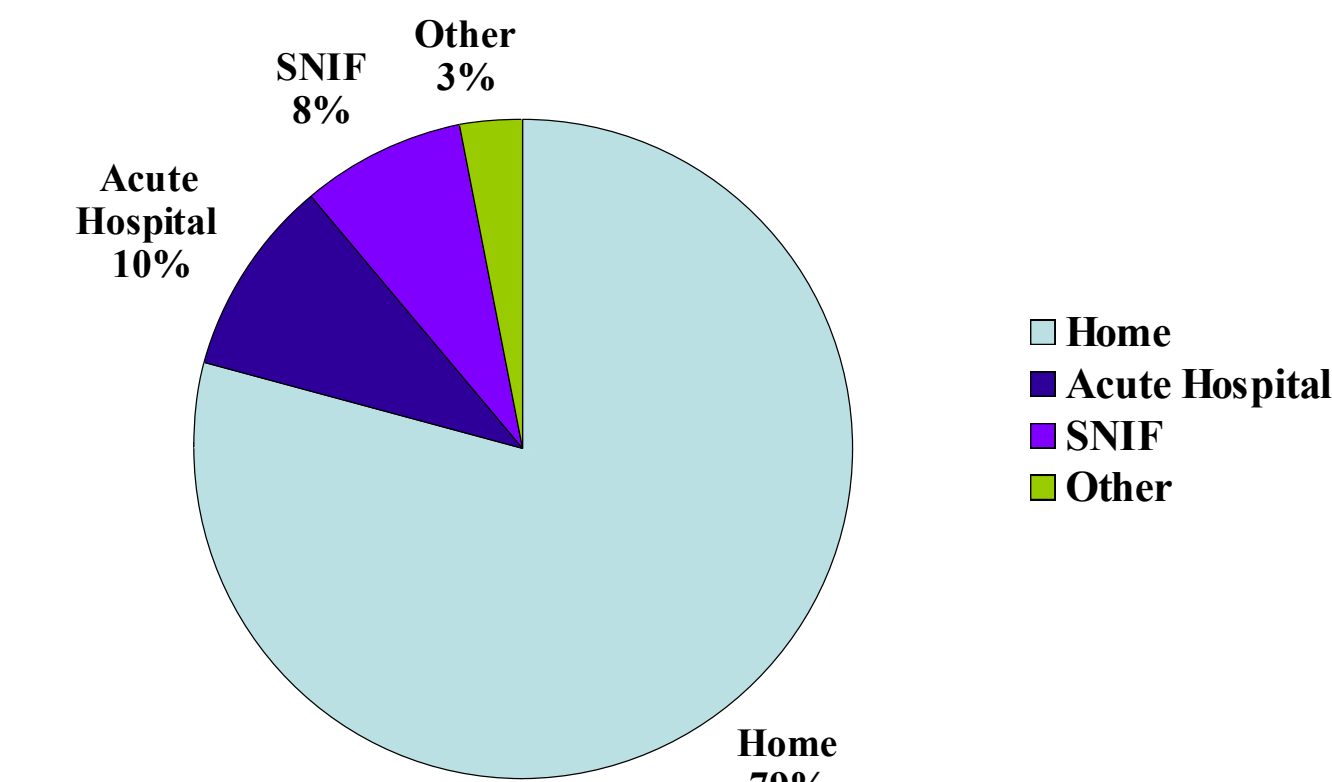
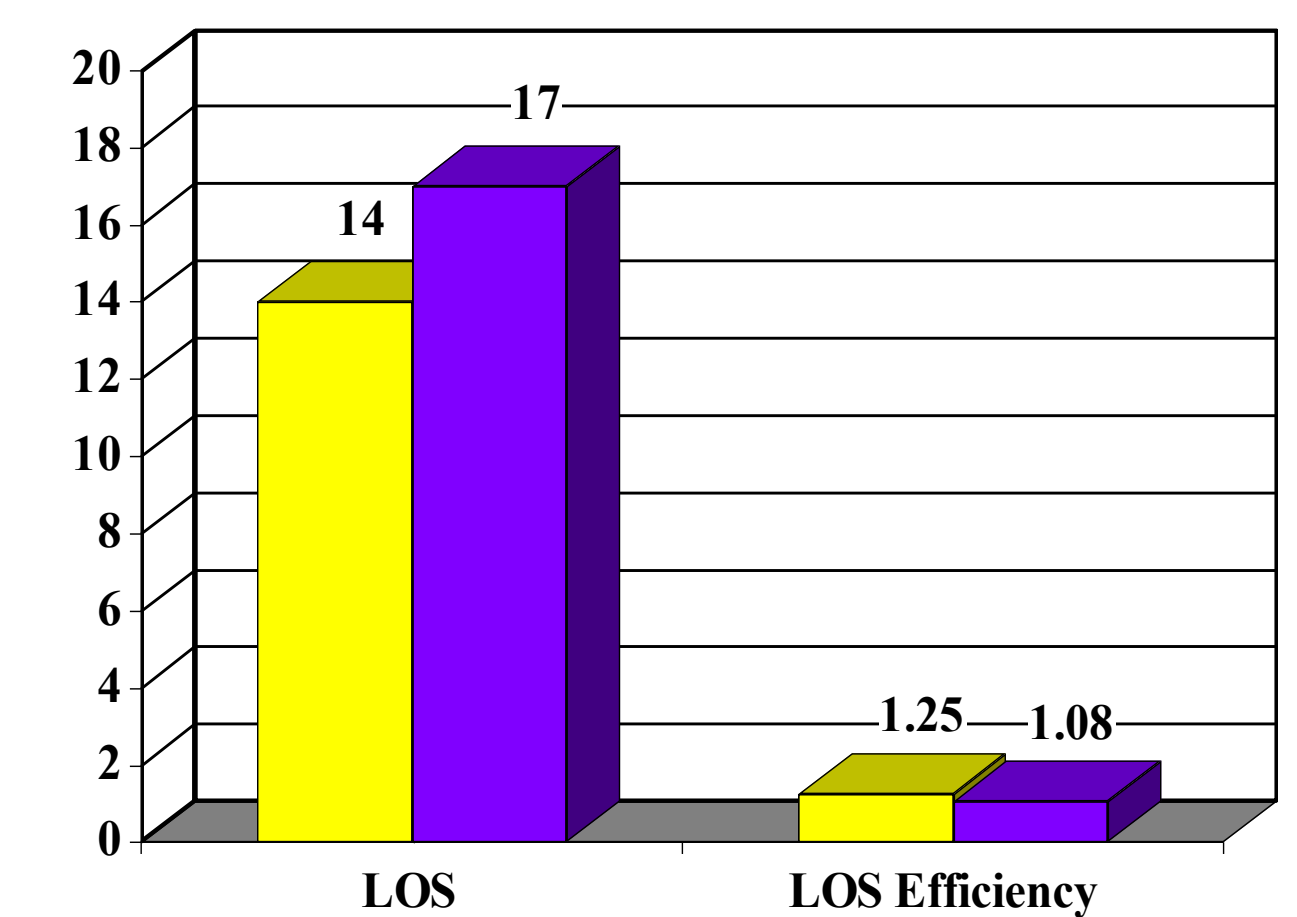
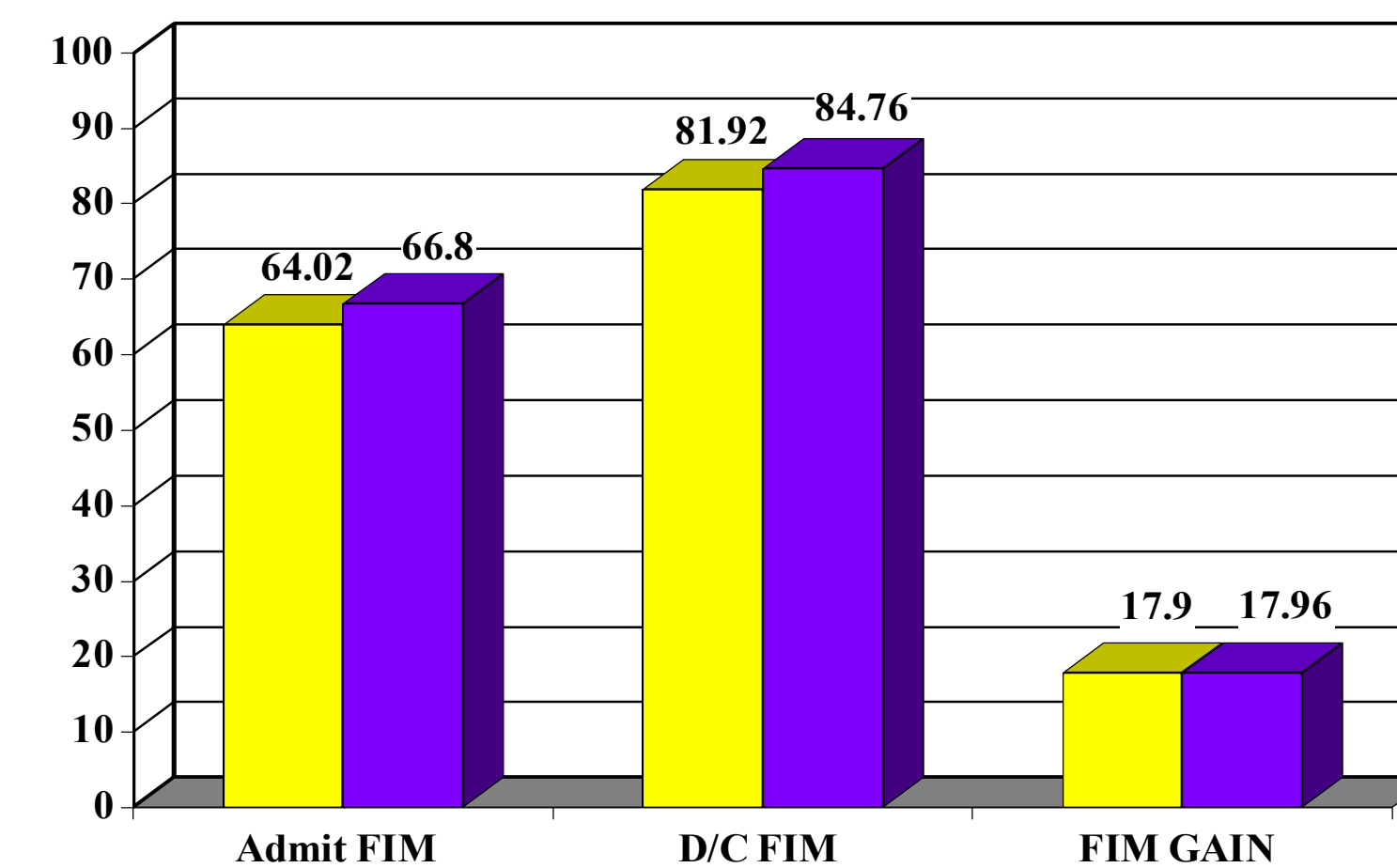
Setting: The study was based at Pitt County Memorial Hospital Regional Rehabilitation Center, a tertiary care center in eastern North Carolina.

Participants: All patients admitted to acute rehabilitation center between January 2002 and November 2006 with morbid obesity as a diagnosis code (278.01). This group was compared to the entire population of patients admitted to the same rehabilitation center without morbid obesity as a diagnosis code. All rehab impairment groups were examined, including orthopedic diagnoses, stroke, traumatic brain injuries, multiple trauma, amputations, spinal cord injuries, cardiac and pulmonary debility.

Methods: Medical records of patients admitted to inpatient rehabilitation with a morbid obesity diagnostic code of 728.01 (n=383) were reviewed compared to medical records of patients without a morbid obesity code (n=5384). A simple t-test was used to compare the two groups.

Mean Outcome Measures: Admission FIM scores, discharge FIM scores, length of stay (LOS), FIM gain, Length of Stay Efficiency (FIM Gain divided by LOS).

Results: The morbidly obese (MO) group had an Admit FIM Score of 66.8 and a FIM Gain of 17.96. The non-obese (control) population had an Admit FIM Score 64.02 and a FIM Gain 17.90. The MO group had an average LOS of 17 days and a LOS Efficiency of 1.08. The control group had an average LOS of 14 days and a LOS Efficiency of 1.25. Statistical analysis showed a significant difference in LOS (p =0.025) but no significant difference in FIM Gain.



Conclusion: In this retrospective study, morbidly obese rehabilitation patients required a greater length of stay to achieve FIM gains comparable to that of the non-morbidly-obese population. The morbidly obese rehab inpatients had a tendency to a greater rate of discharge to home, however, also had a greater rate of return to acute hospitalization as compared to the non-bariatric population.