SeniorMetrix

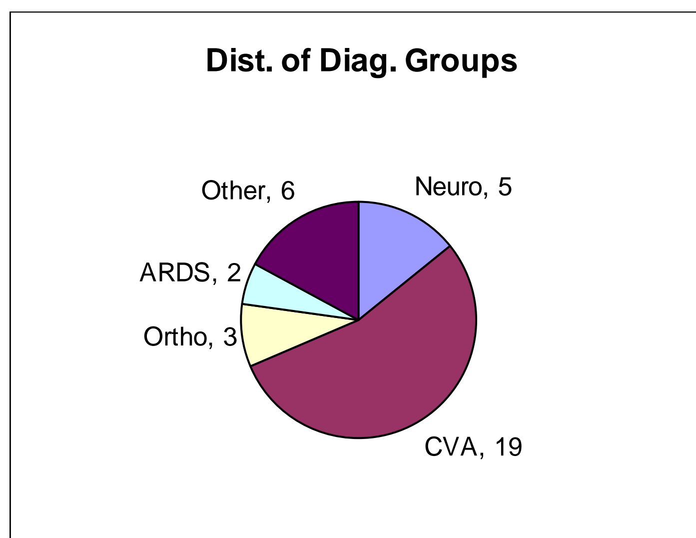
The Analysis of 35 Inpatient Rehabilitation Admissions

According to the General Accounting Office and several other sources, the criteria used for admission to an Inpatient Rehabilitation Facility (IRF) vary, and may of the patients admitted do not require the intensity of services that they receive. The variation in the use of an IRF is widespread from state to state. Texas, for example, has over five (5) IRF admissions for every 100,000 Medicare Beneficiaries while Oregon and Florida have less than two (2).

This study uses objective criteria to analyze the appropriateness of thirty-five (35) IRF admissions at a facility in Northern California. The assumption is that an individual should receive the care they require in the lowest level of care setting that can meet those needs. Higher than necessary levels of care not only deprive the system of needed financial resources but may also expose the members to risks such as infection, depression, and medication errors. The key driver for the appropriateness of an admission was the individual's level of function at the beginning of their IRF stay. The widely recognized Functional Independence Measure (FIM) was the tool used to assess the level of disability.

Functional capability at the beginning of a rehabilitation episode explains a very high percentage of the variance associated with functional improvement and cost, as measured by length of stay. Comparing the admission function with the discharge function over tens of thousands of cases demonstrates that the functional improvement, probability of returning to the community, amount of therapy required and necessary length of stay can be predicted with a high level of certainty.

The thirty-five (35) cases reviewed in this study came from multiple diagnostic groups as seen graphically:



An admission FIM score was established for each case within the first forty-eight (48) hours after arriving at the IRF. A projected level of recovery was determined using that score and a database of over 250,000 cases (SeniorMetrix). The average functional score for the records in the SeniorMetrix database were similar in terms of function, diagnosis, and co-morbidity and were used as the projected recovery for each of the thirty-five (35) cases. Records from the SeniorMetrix database that were admitted to either a Skilled Nursing Facility (SNF) or a Home Health Care Agency (HHCA) were identified and the projected results were determined. If it was determined that a result similar to that achieved in the IRF would have likely occurred in a SNF, a HHCA or at home with no additional services, that outcome was noted.

Based on that analysis, the following optimal referral pattern would have been achieved.

Appropriate Post-Acute Location

SNF	**18**	**51.4%**
HHCA	**8**	**22.9%**
IRF	**9**	**25.7%**

The following table represents the actual results after discharge from the IRF:

Home with Private Assist	**12**
Home with Family	**11**
Home with Spouse	**5**
Skilled Nursing Facility	**4**
Assisted Living with Private Attendant	**1**
Home Alone	**1**
Expired	**1**

If the optimal discharge setting had been utilized (SNF, HHCA, Assisted Living, Home Alone vs. IRF), ***the savings for those thirty-five (35) cases would have been approximately $219,850 or $6,281 per case.***

Summary

It is important to note that there were no clinical characteristics of the IRF cases that could have significantly altered their outcome in a SNF setting beyond those measured in this study. While issues such as age, depression, and other psychosocial factors may influence outcome, these factors carry minimal influence compared to the factors used for a match to the SeniorMetrix database: admission function, co-morbidity and diagnostic category.

It has been documented that therapy levels in a SNF below 1.5 hours per day significantly increase length of stay and decrease functional recovery. Thus, substituting SNF for IRF setting requires adequate therapy levels; typically therapy intensity is higher in an IRF than SNF. Finally, an IRF in most cases does not admit patients unless there is a well defined discharge plan back to the community. Such patients are thus excellent candidates for SNF rehabilitation.