RESTRAINT REDUCTION: QUALITY ASSURANCE PROCESS PROVES NO INCREASE IN FALLS OR INJURIES

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Introduction
After initiating a quality improvement (QI) process using a software package, a facility with a high rate of restraint use established a quality improvement team with the goal to reduce restraints. They were concerned that the number of falls and / or injuries would increase as a result of restraint reduction.

Methods
Due to the way we established the QI process we were able to identify individual patients on individual units and by type of restraint. The facility’s restraint reduction committee began working with individual units in progression over the course of multiple months. During this time period we carefully monitored the above issues, correlating the number of falls and type of injury on each unit. We statistically analyzed number of restraints, falls and injuries due to these falls.

Results
No correlation between the reduction of restraints, number of falls or injuries from falls was found. A reduction in restraints did not increase the number of injuries from falls. (Table 1) (Graph 1)
We reduced the percentage of restraints from 19.9% in January of 2005 to 5.9% in December of 2006.

Conclusion
Through a QI process we demonstrated that in this facility restraint reduction did not increase the injury rate from falls. (Graph 2) Utilizing a QI program including a statistical package within the skilled nursing facility (SNF) was a vital component of our QI process. Routine data collection in the QI process included the data points necessary for this comprehensive study. Our findings were in agreement with prior literature stating that decreasing restraints does not increase injuries from falls. Broader conclusions included that the quality assurance / quality improvement process is essential in each facility and that facilities are able to use results of one QI project to undertake other such projects.
Introduction
The Centers for Medicare & Medicaid Services (CMS) State Operations Manual defines physical restraints as: “any manual method or physical or mechanical device, material, or equipment attached or adjacent to the resident’s body that the individual cannot remove easily which restricts freedom of movement or normal access to one’s body.”

Many types of devices are utilized in skilled nursing facilities (SNFs) for injury prevention (IP). Some of these are counted as restraints on the Minimum Data Set (MDS) and become triggers for quality indicator (QI) # 11.1 “Residents who were physically restrained”. The MDS restraint categories are: “Trunk restraint”, “Limb restraint”, and “Chair prevents rising”. If using only QI reports as restraint indicators, facility leaders can be deceived about the extent of ‘restraintful’ devices being used in their facility. Examples are: the use of a low bed in which the resident is unable to get out of bed without assistance, but could independently enter and exit a bed of normal height, and the use of ½, ¾ or full side rails “for mobility”. If the intent of the rail is mobility (not safety), a simple grab bar would suffice for most residents. These IP devices are not captured in QI # 11.1.

Method
To help facilities refocus on a broader concept of potential restraints, we have encouraged them to monitor all IP devices. (Exhibit 1) Using June 2007 data for 8 facilities, we compared the prevalence of IP devices for each facility to their January through June 07 QI # 11.1 and to the same 6 month state and national averages. (Exhibit 2)

Results
The number of restraints reported in the facility QIs is significantly below the total use of potentially ‘restraintful’ IP devices in a typical facility. For the 8 facilities included in our project between 10.5% and 74.7% of residents utilized one or more IP devices. Comparatively, their facility specific QI reports showed between 0 to 12.7% of residents were physically restrained, state average was 4.3% of residents, and national average 5.4%.

Additional comparisons were made with the percent of residents who were reported to be physically restrained by:

- Online Survey, Certification and Reporting (OSCAR)  
  State average 7.1% and National average 6.2% (June 2007)
- CMS Nursing Home Quality Initiative Quality Measures (NHQI)  
  State average 5% and National average 6% (Quarter 4 of 2006)

Conclusion
Remember restraints counted on the QIs grossly underestimate the extent of IP devices found in the facility. By monitoring all devices used for IP, we are able to focus attention to how the facility views and uses devices for resident safety. During monthly quality assurance meetings, we review current data and capitalize on opportunities for educating the facility leadership on these essential issues and their differences. The data also provides an opportunity to address appropriate care planning and education of residents / families to the risks and benefits of the intended safety devices.
MINIMIZING NUTRITIONAL PRODUCTS IN SNFs:
COST-EFFECTIVE NUTRITIONAL SUPPLEMENTATION FOR NURSING HOME RESIDENTS

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Introduction
Most skilled nursing facilities (SNFs) stock a multitude of nutritional supplements without any understanding of patient needs or costs to the facility. One facility evaluated their current nutritional supplements to determine: cost per serving, nutritional characteristics of the products, and a cost-effective approach to supplementation. Comparisons were made to determine if we could minimize the formulary, maximize patient benefit, decrease nursing administration time, better utilize storage space and create a better understanding of prescribed products.

Although liberalization of diets in (SNFs) is the current trend, providers still offer supplements for residents whose needs are not quite being met through usual means; and it is still believed that state surveyors look for these types of interventions as proof that the facility and provider are making every attempt to correct deficiencies despite lack of proof that they actually affect desired outcomes.

Methods
An analysis in one nursing home revealed that 13 products were stocked at the facility. The supplements could be categorized into 5 major categories:

A = diabetic supplements;
B = high caloric density supplements (1.5 – 2 Kcal / cc);
C = renal specialty supplements;
D = usual density supplements (1 Kcal / cc); and
E = protein powder supplements.

Each of the 13 supplements was analyzed as to its cost per usual serving, administration cost, and nutritional characteristics. During the month of June 2007, 51 residents were monitored daily for supplement consumption and then the average consumption per product was calculated.

Results
Only 5 supplements were in use during the entire 30 day study. The average percent of supplement consumed varied by category from 75 - 100%. (Exhibit 1) Administration of the supplements varied from 1 - 3 minutes depending upon the amount of time required to prepare the product. The cost per serving for each supplement ranged from $.92 to $2.61. (Exhibit 2) There were differences in the grams of protein and Kcal per serving depending on the category of product described above.

Conclusion
The approach to supplementation in SNFs can be improved by this type of simple analysis. The study facility made several changes based on the data:

(1) 8 products were currently being stored but not used and these products could be replaced by less expensive ones with equal nutritional value, consequently they were removed as choices;
(2) within each category, a single product was chosen that was most cost-effective and easy to administer;
(3) an educational program was then created to reeducate the staff and providers on the unique nutritional strength of each product selected; and
(4) a formulary was created to meet specific nutritional goals while remaining cost-effective for the facility.