

# LEAN Standardization for Gastric Emptying Studies

## The Problem

A gastric emptying study is performed in Nuclear Medicine for patients with complaints of heartburn, bloating, satiety, or regurgitation. For a gastric emptying study, a patient eats a meal, mixed with a small amount of radioactive material. The patient is then scanned to monitor the amount of radioactivity in the stomach for several hours after the test meal.

This study is performed on both East and West campus, however variations existed:

- We discovered that the meals were not completely the same on both campuses
  - The written protocol did not have enough specificity
  - Supplies available to each campus were different
- Meal supplies were scattered throughout the department, which caused inefficiencies
- Patient study time sheets for recording study information were out of date and lacked information that may be helpful for patient diagnosis

## Aim/Goal

- Improve effectiveness by standardizing meal supplies and patient study timesheets on both campuses
- Reduce inefficiency by 5S LEAN methodology for supplies on both campuses

## The Team

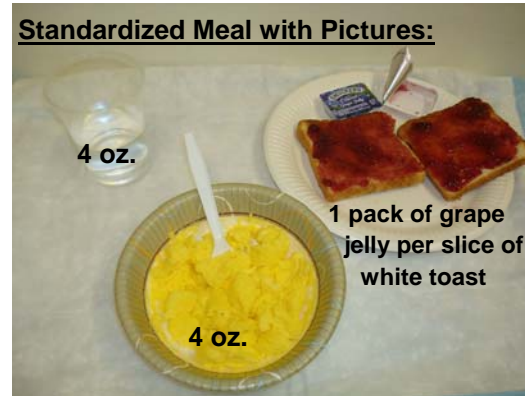
- Dace Jansons, Radiology, Manager Nuclear Medicine
- Jocelyn Charest, Radiology Nuclear Medicine Technologist II
- Lauren Cabral, Radiology Nuclear Medicine Technologist III

## The Interventions

- Update the procedure manual with the new, standardized procedure
- Used the LEAN 5S's to:
  - Sort unneeded meal items
  - Set locations for needed meal supplies
  - Scrub, shine and sweep the immediate work areas
  - Standardize meal supply locations with associated labels, menus with meal pictures and patient time sheets with physician input
  - Sustain goals by educating staff on the new procedure and supplies and continually assessing the area and soliciting feedback from staff and physicians related to the changes

## The Results/Progress to Date

Below are a few examples of our interventions



## Set Supply Locations



In addition, we have:

- Updated procedure manual
- Standardized supplies with pictures for easier recognition
- Written and standardized cooking and mixing instructions
- Revised patient study timesheet, based on physician input

## Lessons Learned

- Variation exists in food supplies from the East and West campus cafeterias, which largely accounted for the lack of standardized meals
- Subtle differences in food (i.e. variation in sweeteners) can result in significant differences in study results

## Next Steps/What Should Happen Next

- Create a template to enter in study results (i.e. amount of food not eaten) instead of paging/calling residents to improve efficiency and documentation of results
- Continually assess interventions to sustain success
- Solicit feedback/ideas from staff for future LEAN process improvement events



Beth Israel Deaconess  
Medical Center



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**For More Information Contact**  
Dace Jansons, Manager Nuclear Medicine  
djansons@bidmc.harvard.edu