

# Nuclear Medicine Technologists Assessing Whether a Myocardial Perfusion Rest Study is Required - Evaluation of a New Routine

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# Background

- Rest-study in Myocardial Perfusion Study (MPS) only when required
- Benefits
  - Reduce patient radiation exposure
  - Saving resources for the clinic
    - camera time
    - staff time for technologists and physicians



# New Routine

Nuclear Medicine Technologists determine the need for a rest study

1. Education of technologists
2. Clinical evaluation and comparison with physicians
3. Implementation of New Routine



# Aim

To evaluate if rest studies are performed more frequently after stress studies after the implementation of this New Routine



# MPS protocol

- Ergometer or Adenosine stress
- Tc-99m Tetrofosmin
- Siemens E-cam
- Gated SPECT
- Attenuation correction



# Step 1: Education of technologists

## Training

- 82 cases with explanations;
  - Why "need" or "no need" for a rest study

## Test

- 20 cases
- Maximum 1 "mistake" was accepted
- All technologists passed the test



# Step 2: Clinical evaluation and comparison with physicians

- Technologists
  - Review the stress MPS images
  - Classify as "Rest – No Rest"
  - Call the physician
- Physician decide "Rest – No Rest"
- 130 consecutive cases
- 96% agreement



# Step 3: Implementation of New Routine

- Based on the good results from Step 1+2
- Implementation of the New Routine in November 2011





# Methods

- Evaluation after implementation
- Differences in frequency of rest studies performed before and after implementation of the New Routine?
- Study periods
  - Before: Jan – Oct 2011
  - After: Nov 2011 – Mar 2012



# Results

- Before “New Routine”
  - 1 141 stress MPS
  - Rest MPS required in 641 (56.2%)
- After “New Routine”
  - 553 stress MPS
  - Rest MPS required in 312 (56.4%)
- No statistically significant difference



# Conclusion

- Properly trained technologists are able to decide whether a rest study is required or not
- Better effectiveness in our department
- Both technologists and physicians are satisfied with the new routine

