Combatting Cardiovascular Diseases: The Unexploited Potential of Nuclear Medicine

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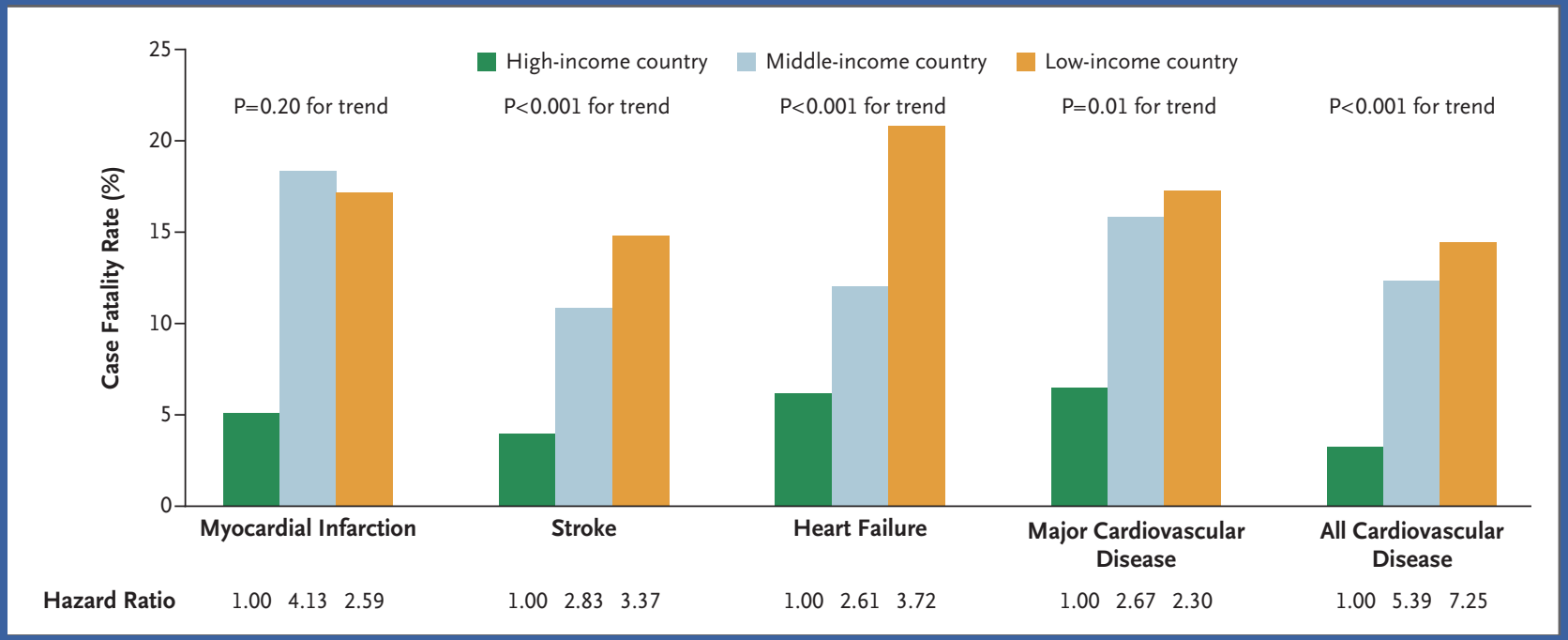
Nuclear Technology for the Sustainable Development Goals

Cardiovascular Disease Event Rates in High-, Middle-, and Low-Income Countries.

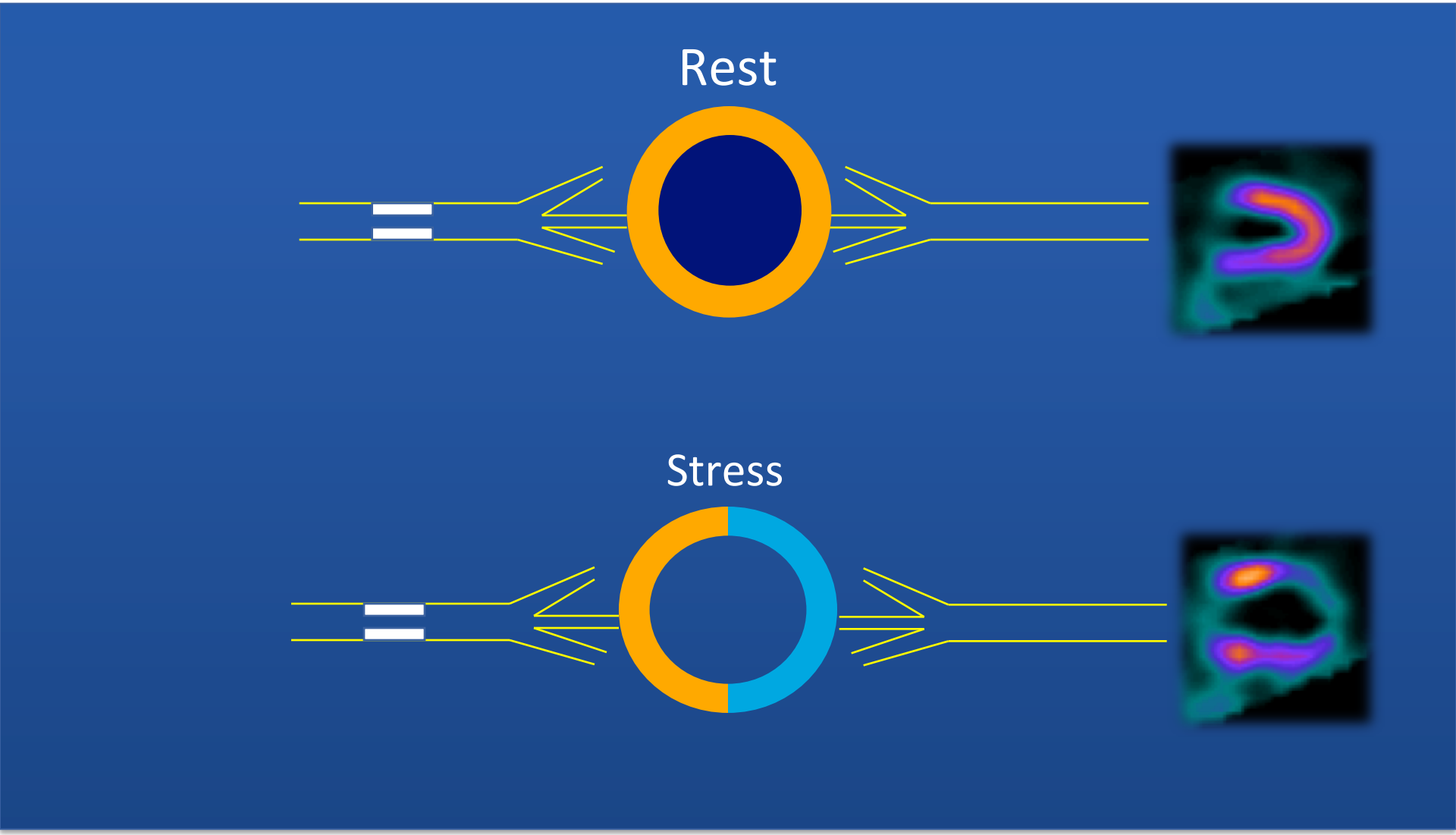


Yusuf S et al. N Engl J Med 2014;371:818-827.

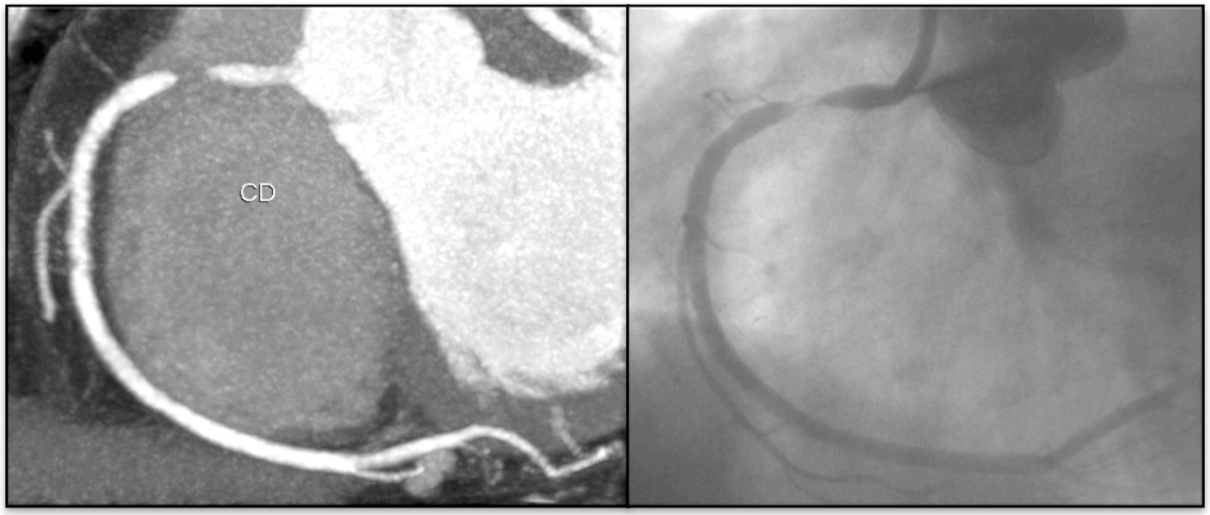
The NEW ENGLAND JOURNAL of MEDICINE

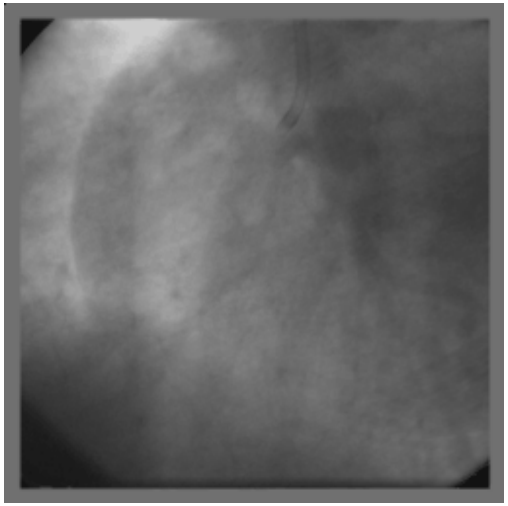
Coronary Artery Disease

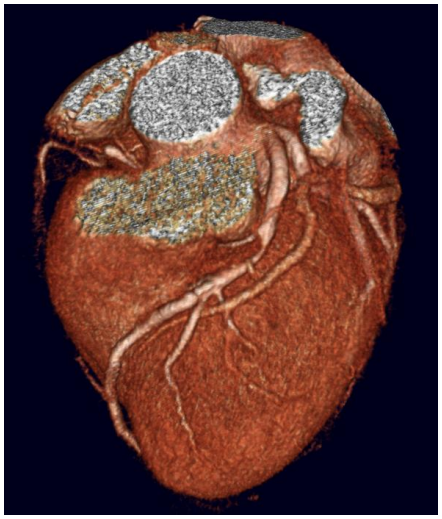
Value of Nuclear Medicine: Ischemia Detection

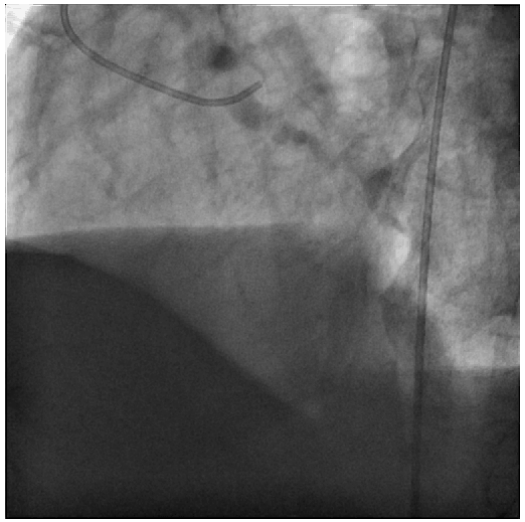


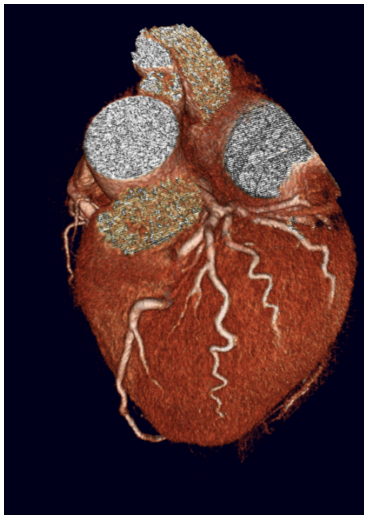
CT Angiography

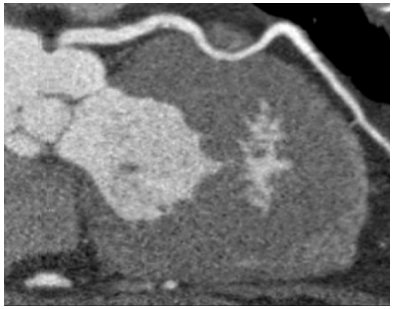






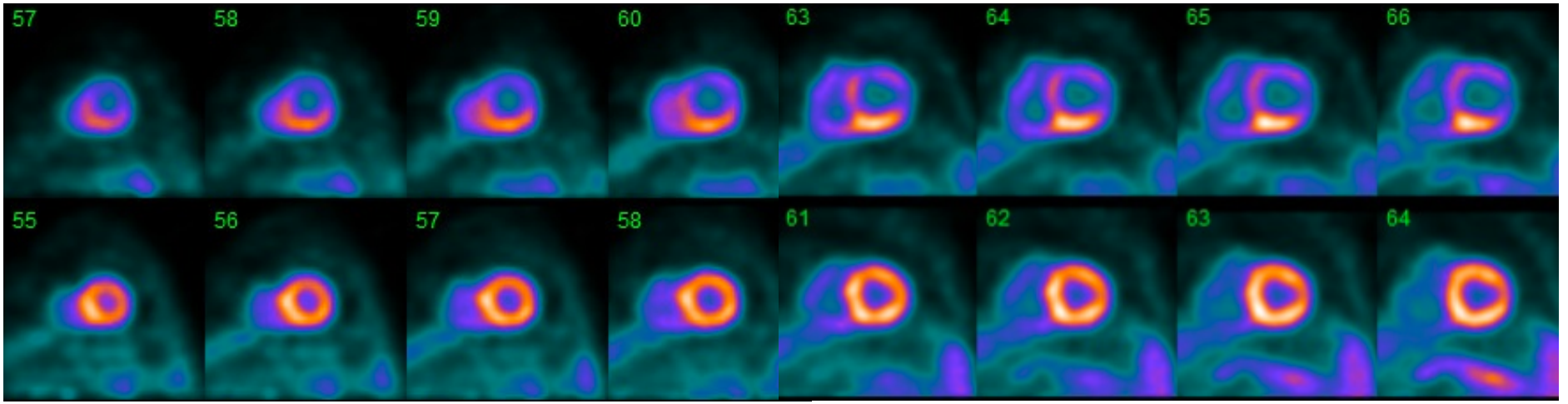




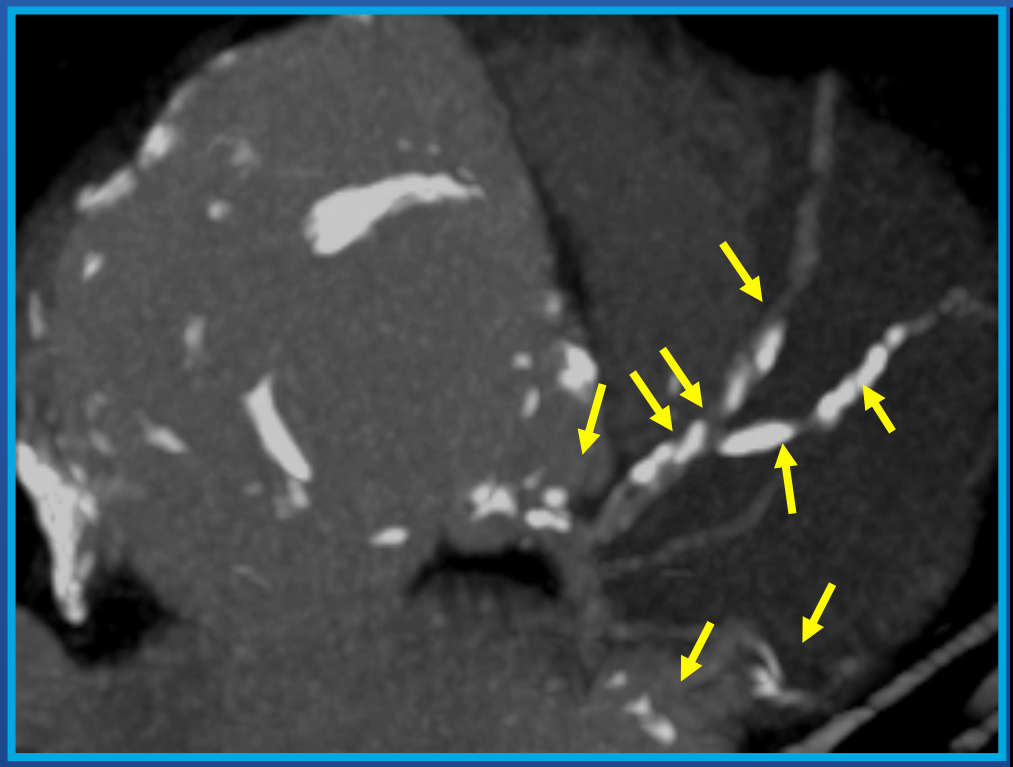


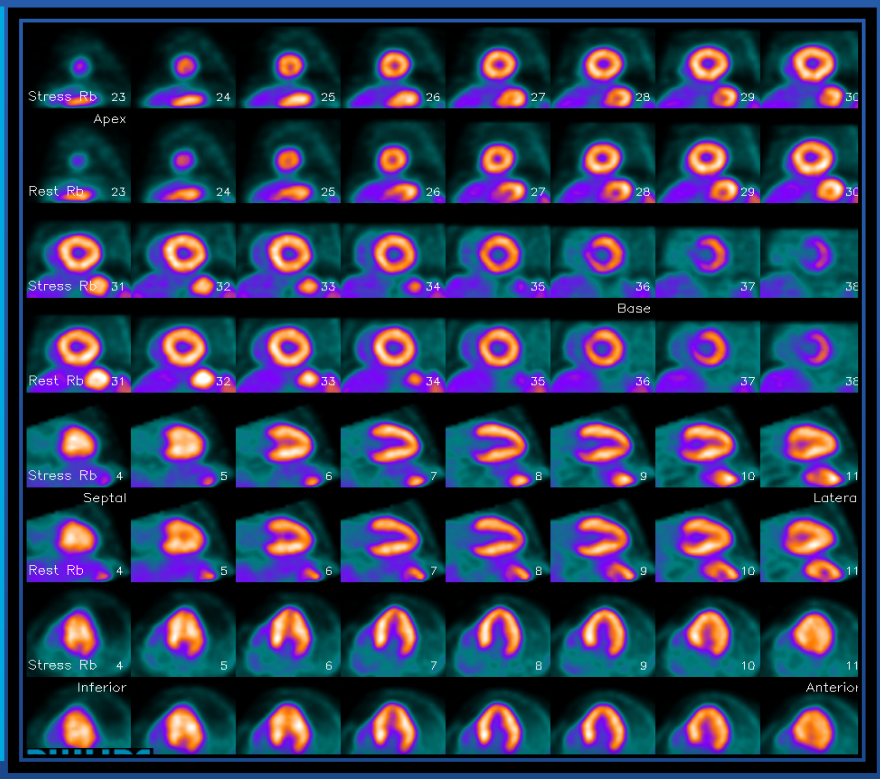
Value of nuclear tests

- 24 year old, male, asymptomatic,
- Important familial history
- Initiating sport activity
- Because ECG positive stress test
- Referred to nuclear medicine

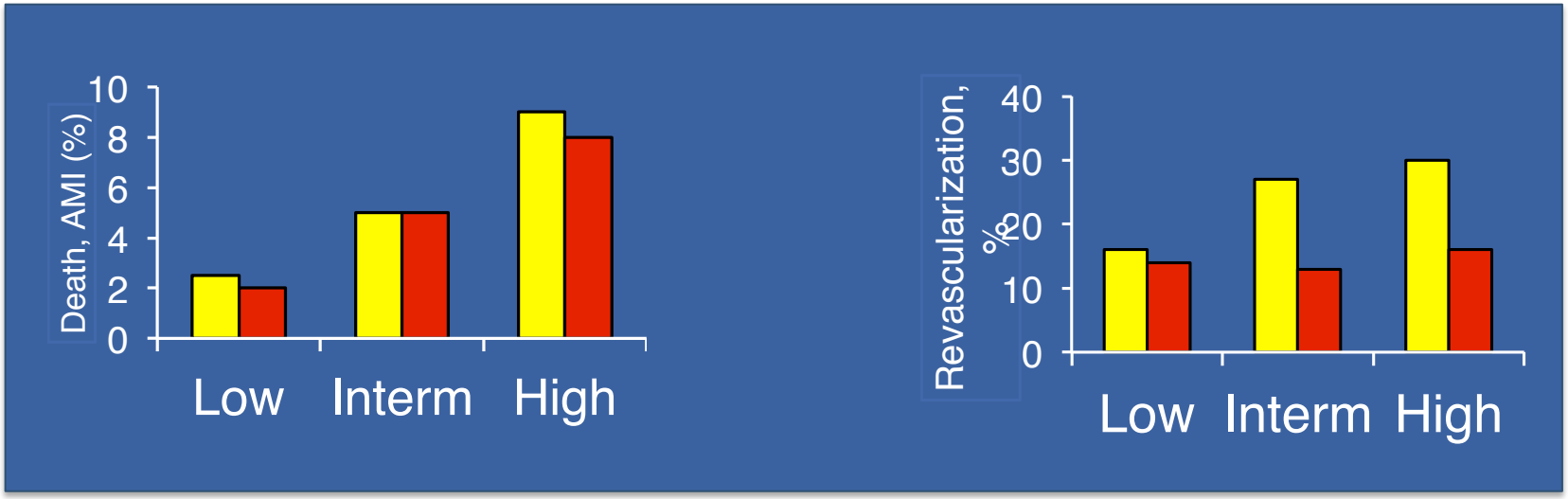


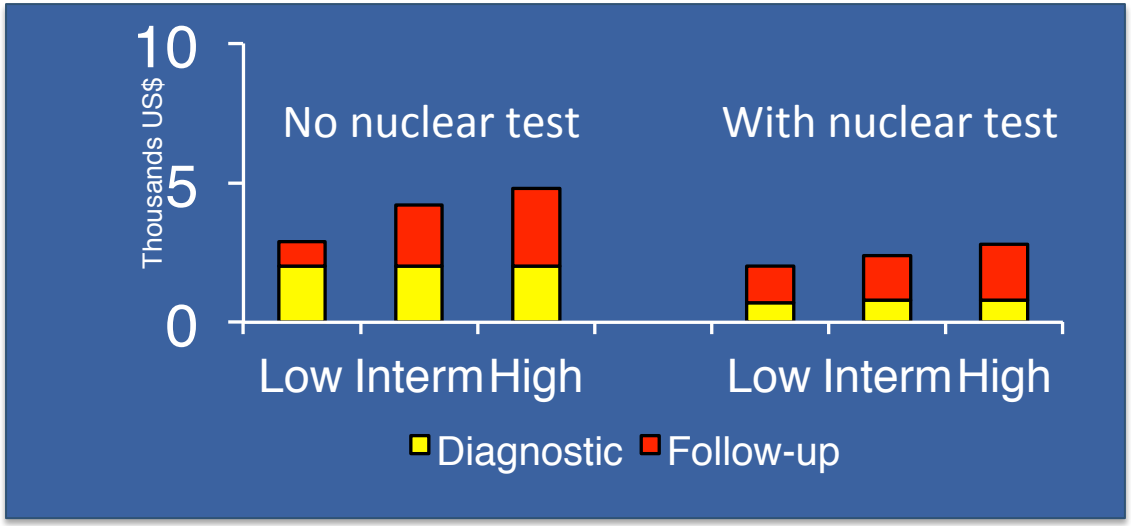
55 yr, male, elevated calcium score in coronary arteries, asymptomatic, questionable positive stress ECG





The END Study





Shaw et al: J Am Coll Cardiol 1999; 33:661–669.

Advantages of Nuclear Medicine

- Non-Invasive
- High accuracy in detecting ischemia
- Extensive validation in the literature
- Included the the majority of clinical guidelines worldwide and under level IA
- Cost-effective
  - Cost of implementation is variable according to the chosen model and region, but can be started with amounts around US$ 800.000,00. IAEA can provide full support including education, written materials, consulting and even equipment acquisition to the affiliated countries.
- **SDG 3: GOOD HEALTH AND WELL-BEING**
  - In Brazil, nuclear tests are widely available throughout the whole country, and many patients have been benefitted by that kind of technology, specially in the public health system, promoting good health and well-being towards the population.

Thank you!

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