Nuclear Cardiology Reports

Until 1997, no standards for reporting results of nuclear cardiology studies existed. The ICANL was the first to publish standards and templates for optimal nuclear cardiology reports (1) (see also http://www.icanl.org). The reason for this publication was that peer review of numerous nuclear cardiology laboratories revealed that the form, content, and quality of nuclear cardiology reports were highly variable and frequently poor. A poor quality report is at best of little value to the referring physician and at the worst confusing, useless, and potentially harmful for patient care.

Key Words: Reporting standards, Reporting templates, Required elements in report.

The report of findings and interpretation is the final product of a nuclear cardiology procedure. The most important purpose of a nuclear cardiology report is to clearly communicate findings and clinical implications of stress tests and nuclear images to a referring physician. Thus, the report should help a referring physician in making clinical management decisions.

A referring physician is entitled to a clear conclusion: normal or abnormal, and if abnormal, how severely abnormal. The report may indicate, when appropriate, whether the risk for future cardiac events is low, moderate, or high. Certain imaging findings may have different clinical implications depending on the clinical context and results of stress testing. These nuances should be conveyed in an optimal report. If there were technical limitations to the study, they need to be stated and their impact on the final interpretation indicated. The second purpose of a report is to document the services provided for reimbursement purposes.

From: Contemporary Cardiology: Nuclear Cardiology, The Basics

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An adequate report should contain the following elements

- Patient demographics (age, gender, and race) and ID number
- Date of study
- Summary of history
- Indication for study
- Type of stress and imaging test
- (Radio)pharmaceutical(s) and activity administered
- Stress findings, symptoms, and ECG changes
- Descriptive image interpretation
- Final impression integrating stress and imaging finding
- Original signature by the interpreter

An adequate final impression should contain the following elements:

- Quality of study. Suboptimal study quality must be mentioned
- Normal or abnormal result
- Description of perfusion abnormality (size, reversibility, severity, and location)
- Non-perfusion abnormalities (lung activity, transient LV dilation, and right ventricular visualization)
- Left ventricular function (global and regional)
- Non-cardiac radiotracer uptake

Nuclear cardiology studies should be interpreted and reported on the day of performance. Final reports must be completed, signed, and mailed on average within 2 working days. This is an important requirement for ICANL accreditation.

It is strongly recommended that abnormal test results be communicated directly to referring physicians on the day of performance of the test. This allows for a discussion of the results within the clinical context. Patients with markedly abnormal tests should not leave the imaging facility before the referring physician has been contacted.

Final reports must be hand-signed by the interpreter. Stamped signatures are not acceptable.

The following templates for standardization (Figs. 17-1 to 17-3) of nuclear cardiology reports were published by the ICANL.

These templates should be viewed as guidelines for form and content. Obviously, reports can be individualized to one’s personal style and needs.

Standardization is also one of the prerequisites for the development of electronic reports (5). In Figs. 17-4 and 17-5, examples of computer-generated reports and a dictated report on the same patient are shown. Both reports contain all elements required in an optimized report. Figure 17-6 is a sample dictated report on a ERNA study of a different patient.