POLICY IMPLICATIONS

Cardiac radionuclide imaging is a new, rapidly expanding, and relatively expensive technology with the potential for extremely broad application in the diagnosis and evaluation of heart disease. The major challenges are to define the limits of its potential, to ensure proper use within those limits, and to maintain quality control. Physicians, the government, and third-party carriers all will need to participate in meeting these challenges.

Physicians are in the best position to define clinical indications and to ensure quality control. Since physicians stand to benefit monetarily and professionally from the performance of cardiac scans, however, they need to be counterbalanced by others who have a societywide perspective. Among the issues that require contributions from outside the medical profession are utilization control, prevention of possible low-dose radiation risks, and planning for future R&D.

Policy questions stimulated by the present study include the following:

1. Under what circumstances does cardiac imaging serve a useful role in cardiac diagnosis and evaluation, and what is the potential of cardiac imaging to obviate the need for other diagnostic modalities?
2. Should the diffusion of cardiac imaging capability be limited to hospitals with demonstrated nuclear medicine expertise, or should commercial laboratories and private practices perform scans?
3. Could certificate-of-need legislation be used to limit diffusion? Does scanning constitute a new service? Since cardiac imaging may be performed with existing equipment, it seems unlikely that the capital expenditure limit of the certificate-of-need legislation will be applicable except to positron emission tomography and new types of CAT equipment.
4. Should a group of experts be asked to define clinical indications for imaging? How would the standards be updated to accommodate improvements in the technology?
5. How could utilization be limited to these indications? Could reimbursement policies under Medicare and Medicaid be adapted to this end?
6. At present, there are wide differences in third-party reimbursement policies in different parts of the United States. Would standardization of policies and rates by Medicare/Medicaid and Blue Cross/Blue Shield be desirable? If the twofold discrepancy between the resource costs of scans and fee schedules were verified, should reimbursement schedules be adjusted?
7. How can safety in the use and disposal of radionuclides in cardiac imaging be assured?
8. How should the quality of laboratory results be monitored? Would a mechanism of quality control similar to that used by clinical chemistry laboratories be feasible?
9. Should R&D in new radionuclide imaging techniques be encouraged? With what objectives?
10. What further evaluation of the clinical effectiveness and cost effectiveness of radionuclide imaging needs be done? Should the use of scans by practicing physicians be monitored to document the effects on clinical decisions and patient benefits? Should the sensitivity and specificity of these techniques in population subgroups be further evaluated?
11. Would a National Institutes of Health consensus conference serve as a useful stimulus to develop policy concerning cardiac radionuclide imaging and to increase awareness of the medical profession of the benefits and limitations of imaging?

Most of these questions are generic ones that need to be addressed for any new technology and for many existing technologies, as well. Implementation of a uniform policy for evaluating medical technologies would serve, in the long run, to benefit the public and the medical profession alike.