

Overview

The U.S. cardiac equipment market for noninvasive techniques consists of five major product categories: electrocardiograph, echocardiograph, phonocardiograph, stress testing equipment, and diagnostic computers.*

The long domination of cardiac diagnostic equipment by electrocardiograph (EKG) equipment has been challenged in the past two decades by three innovations: (1) the application of ultrasound technology to cardiac diagnosis, resulting in echocardiograph equipment; (2) development of computer-assisted interpretation of EKG results; and (3) packaging of products into stress testing packages.

The various types of cardiac diagnostic equipment represent different levels of sophistication. Purchasers are showing a trend toward preferring three-channel EKG equipment over single-channel EKG equipment. Similarly, 2-dimensional echocardiograph equipment is preferred to unidimensional (M-mode) echocardiograph equipment. In addition, these products feature a high degree of modularization. For example, most echocardiograph equipment has an EKG trace which runs simultaneously with the ultrasound scan.

Stress testing equipment has been marketed recently to fill the need for systematic cardiac evaluation of patients after controlled levels of activity. Stress testing packages vary widely. For example, Hewlett Packard offers various combinations of single and 3-channel EKG with a Hewlett Packard monitor and recommends purchase of a treadmill from Quinton Instrument Company.

Computer-assisted interpretation of EKG results, after a long struggle for physician approval, is currently showing rapid acceptance. The use of computers to interpret echocardiograms is still in its infancy but is expected to show rapid growth by the middle of the 1980s.

Phonocardiograph equipment shows the poorest profile among the product categories described here, primarily due to its low popularity. This equipment, which records heart sounds on a chart, is offered as an option to EKG and echocardiograph equipment, rather than being sold as self-standing equipment. 1979 U.S. sales volume for this option was \$2 million. Phonocardiograph equipment will not be emphasized in this report.

* It should be noted that these five product categories account for \$72.8 million of the estimated total cardiac equipment market of \$650 million.