

Cardiovascular Disease Management... Sound Approaches to a Complex Disorder



Cardiovascular disorders are common in patients with chronic renal disease, and their prevalence appears to be increasing.¹ Cardiac disorders develop early, usually well before patients initiate dialysis. Contributing factors include anemia, diabetes, hypertension, and uremia itself. Cardiac disorders have many manifestations—left ventricular hypertrophy, dilated cardiomyopathy, ischemic heart disease—and many consequences.

The Clinical Picture

Left ventricular hypertrophy (LVH) has been found in up to 74% of patients with chronic renal failure initiating dialysis.² This disorder, which nearly triples death risk, occurs when fluid accumulation causes enlargement of the left ventricle of the heart and thickening of the heart wall muscle. LVH is present in patients who later develop coronary ischemia, arrhythmias, and congestive heart failure.

Dilated cardiomyopathy—a disorder of systolic function—has been found in up to 20% of dialysis patients. Dilated and hypertrophic cardiomyopathies are difficult to diagnose based on clinical grounds alone. Echocardiography, a tool for visualizing heart structure and function, remains the best way to distinguish between the two disorders. About 75% of dialysis patients have an abnormal echocardiogram.

Early detection can make a difference

Cardiovascular disease is the leading cause of death among patients with end-stage renal disease (ESRD) and in renal transplant patients. Cardiac abnormalities are a major contributor to hospitalization in patients with chronic renal failure.

Since cardiac disorders usually are present before patients initiate dialysis, early detection and management of cardiovascular disease and its risks may prevent heart complications as renal disease progresses.

*Most cardiac disorders are already present
at the time patients initiate dialysis.³*

Greater Insight with Imaging Diagnostics

Spectra's Cardiovascular Disease Management Services—echocardiography, laboratory testing, and data management—help clinicians to identify and manage cardiac disorders early enough to make a difference in patient morbidity and mortality.

Spectra's expanded services include:

- Imaging Diagnostics using echocardiography
- Comprehensive laboratory testing for cardiac risk factors
- Data and information services using Lia®—the industry's most advanced laboratory data management system

Benefits of Seeing with Echocardiography

Visualization of the heart by echocardiography permits early identification of cardiac disease, leading to earlier intervention and reduced morbidity and mortality. Direct imaging of the heart also enables clinicians to distinguish between dilated and hypertrophic cardiomyopathies; since therapies for these disorders differ, this approach enhances disease management.

Spectra's expanded Imaging Diagnostics Services can help clinicians evaluate patients for cardiac disorders and guide treatment:

- Establish a baseline for cardiac disease progression
- Assess existing cardiac disease and indicate therapy
- Distinguish between hypertrophic and dilated disorders, which are difficult to assess by symptoms alone and have different management
- Evaluate cardiac function in candidates for renal transplantation

Spectra's Imaging Diagnostics Service provides valuable information about cardiac disorders that is unavailable by other practical methods.

Get the Complete Picture

Spectra's expanded services now include Imaging Diagnostics, such as peripheral vascular imaging, Doppler flow testing and echocardiography, and physiological diagnostics such as nerve conduction and bone densitometry.

For further information on our Imaging Diagnostics Services, call 888-SRM-2040 (776-2040).

Imaging Diagnostics... Using Sound to See

Echocardiography uses noninvasive ultrasound to provide detailed images of the heart, permitting visualization of its structure and valves.

Sound pulses are emitted into the chamber of the heart. These sound waves "echo" or bounce off the heart's walls and valves. The reflected sound waves are converted into electrical signals that can be plotted on a screen to produce an image of the heart called an echocardiogram.

SPECTRA'S ECHOCARDIOGRAPHY SERVICE

FEATURES	BENEFITS
On-site testing	Convenient for patients and staff Reduces health care costs
Performed pre- or postdialysis	Improves patient compliance Reduces extra patient visits
Best portable ultrasound equipment	Produces high-quality images
Noninvasive	Comfortable for patients Quick and easy to perform
Quick interpretation by board-certified cardiologist	No delays in diagnosis Consistent and accurate
Trained echocardiography technologists	Provide consistent and accurate measurements
Comprehensive report & printout	Supports patient management Provides medical record documentation
Rigorous QA program supported by staff cardiologists	Ensures high standard of service

CLINICAL INDICATIONS FOR ECHOCARDIOGRAPHY

CLINICAL FACTORS	COMORBID CONDITIONS	LABORATORY FINDINGS
<ul style="list-style-type: none"> • New Maintenance Dialysis Patients • Bruit/Friction Rub • Shortness of Breath • New Cardiac Murmur • Fluid Overload/Edema • Wall Motion Abnormalities 	<ul style="list-style-type: none"> • Diabetes • Hypertension • Lipid Disorders • Coronary Artery Disease • Congestive Heart Failure • Anemia 	<ul style="list-style-type: none"> • Electrolyte Imbalance • Increased Circulating Parathyroid Hormone • Low Hematocrit • Low Serum Albumin • Abnormal Blood Lipid Profile • Elevated C-Reactive Protein (CRP)



SPECTRA RENAL MANAGEMENT

Spectra Renal Management's Imaging Diagnostics. Giving you a clearer picture for managing disease.

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