# Clinton Scare Has US Men Rushing For Heart Checks

by Marsha Knapik and Cyndi Havrilak



This was the headline on MSNBC on September 12, 2004. The article reported that hospitals were seeing an epidemic of 'Clinton syndrome' as worried, middle-aged men rushed to get their tickers checked. Many of the men thought if this could happen to a person as important as President Clinton, who has access to the latest in health care, then it could surely happen to them.



This "scare" has presented an opportunity to review just how we diagnose heart disease and discuss the latest thinking that includes seeing beyond invasive coronary angiography (cardiac catheterization). While cardiac

catheterization has long been considered the gold standard for diagnosis of coronary artery disease, newer non-invasive imaging modalities challenge its position. Computerized tomography angiography (CTA) and magnetic resonance angiography (MRA) are rapidly emerging imaging modalities that providers use to diagnose coronary artery disease.

The following outlines the advantages and limitations of imaging modalities for diagnosis of coronary artery disease:

### **Cardiac Catheterization**

## Advantages:

- lity is performed and interpreted by one physician specialty (Cardiology)
- Diagnostic results have established credibility and are endorsed as current "gold standard" by American College of Cardiology
- Established reimbursement

## Limitations:

- Uses radiographic contrast which can cause nephrotoxicity or may have patient sensitivities
- Is an invasive procedure and carries the associated risks (bleeding, vascular, arrhythmias, etc.)
- May require sedation
- Radiation exposure to patient and staff

# **Computerized Tomography Angiography**

#### Advantages:

- Non-invasive
- No specialized patient monitoring related to the examination is required
- Less time for the patient
- Involves less labor costs from a room staffing perspective
- Does not necessarily require RN presence unless additional sedation and monitoring are required based on patient condition
- Easier modality to install with lighter weight equipment requiring less space (however rapid turnaround of patients may require some space for patient holding)
- Currently have widespread accessibility to CT scanners
- Not contraindicated in uncooperative patients or patients with implanted pacemakers (as is MRA)

#### Limitations:

- Potential physician competition for interpretation of the examination (Radiologists and Cardiologists)
- Interpretation of cardiac imaging has a physician learning curve
- No historical credibility of the diagnostic results
- Lower resolution currently limits the quality
- Potential for higher radiation exposure than to doses during cardiac catheterization
- Uses contrast which can cause nephrotoxicity, sensitivities or allergic reactions
- Facility design will still require radiation barriers in the room walls
- Reimbursement for specific cardiac components has not been established

## **Magnetic Resonance Angiography**

#### Advantages:

- Non-invasive
- No radiation exposure
- Personnel costs are less then angiography
- Established reimbursement for cardiac & vascular
- Acceptable diagnostic standard for vascular & some cardiac imaging
- Contrast agent is not nephrotoxic, low rate of allergic reactions
- Can provide only comprehensive modality

#### Limitations:

- Specific facility designs must be considered to maintain imaging clarity and reduce exposure to magnetic field.
- Cost of unit 2-3 million
- Patient through put limited due to lengthy procedure time.
- Patients with metal fragments or some medical devices will not be candidates for testing.

President Clinton's experience can serve as a wake up call for all of us. Hospitals can use the President's experience as an opportunity to evaluate the diagnostic services they offer as well as their cardiovascular community outreach programs to ensure they are adequately serving their communities and properly planning for the future.

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