

# Improving the quality of cardiac care with the PageWriter TC70

Rural Stephens County Hospital adopts extended lead ECG as standard protocol to help speed diagnoses of urgent care patients

“It shouldn’t matter whether you walk into a cardiologist in Atlanta, or if you come into our little hospital in northeast Georgia, you should get the best possible care available. And that’s what the PageWriter TC70 allows us to give.”

*James Halsey  
RRT, RPSGT  
Manager, Department of  
Respiratory Care  
Stephens County Hospital  
Toccoa, GA*

## A new protocol

“Anybody who comes to our emergency room, and anybody who has an ECG for respiratory therapy, is given an extended lead ECG,” says Jim Halsey, Manager of the Department of Respiratory Care at Stephens County Hospital in Toccoa, Georgia.

Halsey broke from tradition by mandating a protocol change from 12 to 16 leads for every critical care ECG. His team is setting new standards of excellence using the Philips PageWriter TC70 cardiograph with the advanced DXL 16-lead ECG algorithm. “The diagnostics are simply more precise,” insists Halsey.

## Looking for better data

Based on his own research, Halsey determined extended lead studies were the best way to demonstrate posterior heart wall involvement with a myocardial infarction. He adds, “I also knew there were improved algorithms used to diagnose ECG cardiac instabilities. I felt certain we could generate a much clearer, more precise image of the heart for our doctors.”

The PageWriter TC70’s integrated 16-lead analysis takes advantage of right chest and posterior electrodes to provide extended interpretation for chest pain. The system then highlights those conditions requiring immediate clinical attention with four easily understood and visible clinical values:

- Acute MI
- Acute ischemia
- Complete heart block
- Very high heart rate



“Prior to doing extended lead placement,” says Halsey, “there were only subtle signs that the patient was having an MI that was posterior based. Important data was lost because it wasn’t being picked up. With the new algorithm and additional leads, the ECG can be much more specific.”

### Proving its worth

Some Stephens County staff wondered if the 16-lead protocol was really going to make a difference. It wasn't long before their concerns were put to rest. Halsey recalls the specific case, "We did an extended lead ECG on a patient that indicated myocardial posterior wall infarction. At the same time we drew for a Troponin test that showed no evidence of damage. We chose not to discharge the patient and redrew blood after a short period of time. The new test revealed a critically high value change. Obviously if we'd sent the patient home, the outcome might have been poor. Instead we immediately flew him down to our cardiac referral center and today he is finishing cardiac rehab."

Speed to diagnosis is critical. Halsey is keenly aware of STEMI guidelines and believes the PageWriter TC70 can have a positive impact. "From the time our ER physicians order an ECG to the time it's completed is less than 15 minutes," he says. "For 'stat' blood work it's going to take somewhere between 45 to 60 minutes. If STEMI guidelines say diagnosis to treatment should be 90 minutes or less, and it is 30 minutes from here to our referral cardiology center, then getting a reliable diagnostic indication from the TC70 is a critical timesaver."

### Pediatrics

As an industry leader in pediatric ECG analysis since 1982, Philips has built upon that experience to maintain an advanced, fully integrated pediatric interpretation. With the TC70, Halsey's team does ECGs with

additional right chest leads for all newborns and children under 12. "We've had compliments from our children's healthcare docs down at our referral center for adolescent cardiology in Atlanta. They say, 'Wow, we don't expect to see this level of expertise from a small rural facility.' But to me this is what should be done as a matter of course."

### Fewer serial comparisons

"What we used to say is, 'We'll do an ECG now and we'll do an ECG at midnight and we'll do another in the morning.' We don't do this much anymore. We get a better picture from the initial study and so may not have to take serial ECGs." Halsey believes that by using extended leads from the outset, there may not be a need to acquire additional investigative ECG data. Once doctors have a reasonably confident diagnosis, they can wait for blood work, chest X-ray or MRI results.

### A sensible choice

From its easy 1,2,3 step operation to its WiFi integration, the PageWriter TC70 is designed to meet the highest clinical standards for quality, accuracy and consistent performance.

Jim Halsey tells those who will listen that it's a great choice for any hospital. "For a department manager like me, the fact that the TC70 wirelessly and automatically communicates with my EMR, helps physicians quickly reach an informed diagnosis and is simple to use, makes the selection a no-brainer."

Please visit [www.philips.com/pagewriterTC70](http://www.philips.com/pagewriterTC70)



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Printed in the USA.  
4522 962 66831 \* NOV 2010