



# PROFILES

SOMAGEN™

## HOPE: One Heart at a Time

Mending hearts for over 12 years, Calgary Foothills Hospital Cardiology Division has grown to serve 90 - 100 patients per year in their Cardiac Transplant unit and 400+ patients in their Heart Function Clinic.

In addition to the sensitive and caring support network that these FHH Clinics provide for their patients, embracing technological advancements has been a large part of their recipe for success and has led to impressive improved patient outcomes.

One of these tools for success is Triage® Rapid Response BNP. Dr. Debra Isaac, Cardiologist and strong supporter of the utilization of Triage® BNP along with her nursing staff at the FHH Cardiac Transplant and Heart Function Clinic, share some success stories that they relate directly to the availability of a Triage® BNP result.

### What is your focus at the Foothills Cardiac Transplant and Heart Function Clinic?

**Dr. Debra Isaac:** Our goal is to give our patients quality and quantity of life. We get patients in the heart function clinic that have been told “don’t buy

any long novels”, and young people who are frightened “I may never have sex again because I have heart failure or never work again because I have this very poor prognosis.” We give them hope.

### How does Triage® BNP fit into your patient management strategy?

**Dr. Isaac:** Once patients are admitted into the Cardiac Transplant and Heart Function Clinic we have found that we can effectively use Triage® BNP for risk stratification, prognostication, management and diagnosis in terms of acute exacerbation of heart failure. We monitor their progress by first establishing their baseline BNP. We can then track to help determine if a change in their therapy is working, or if they are not responding to therapy we can determine if it is due to heart failure or another cause.

**Joanne Richardson (RN Cardiac Transplant Clinic):** Patients always appreciate it when you can back up your assessment with test results. Although we try to avoid having them concentrate too much on numbers, they feel more confident when we can tell them things are improving and that their BNP levels support this.

**Tracy French (RN HF Clinic):** Our patients often have a pulmonary as well as a heart failure component, so Triage® BNP helps to differentiate between the two which is really helpful.

### Do you have a patient example that shows how Triage® BNP differentiated heart failure from a pulmonary problem?

**Dr. Isaac:** A particularly memorable patient of ours had long been listed for heart and lung transplant. While she had had a remote MI and moderate LV dysfunction, her major limiting factor was severe end-stage emphysema, which is why she required heart-lung transplantation. She had multiple admissions and presentations to the Emergency department for exacerbation of shortness of breath, and was always assumed by the assessing physician to be in heart failure. This was consistently difficult to confirm or disprove clinically until we were able to use Triage® BNP. Once identified that her BNP was always low, we could concentrate on managing her pulmonary problems and avoid over-diuresis and subsequent renal insufficiency which had previously been the pattern with her. Recently she presented again with shortness of breath but this time her BNP was 900, clearly indicating that something was different. She was immediately sent to CICU and was able to

*Somagen Diagnostics proudly acknowledges Foothills Hospital for successfully implementing new technologies that have increased the standard of care and demonstrated a positive impact on their patients and their Cardiovascular Services.*





get the most appropriate treatment without delay because we had a specific test that established quickly where she needed to be.

### How do you see Triage® BNP impacting patients in a rural setting?

**Dr. Isaac:** There are so many times when rural physicians call me and try to describe their patients symptoms and their clinical impression over the phone where they (and I) are not certain whether this patient has heart failure. Most of these rural medical centres do not have access to echocardiography. We end up transferring these patients to the city for echos or cardiology assessment when we could use Triage® BNP to help us determine how best to manage them. Rapid access to a BNP result could avoid unnecessary transport for echocardiograms and better determine if there are significant cardiology concerns.

I think education is the key, I know if physicians understood what they could do with this test they would be clamoring for it.

### Triage® BNP

The Triage® BNP Test measures B-type natriuretic peptide (BNP), a hormone produced by the heart ventricles in response to ventricular volume expansion and pressure overload. A blood sample analyzed on an easy to use portable device provides BNP results in as little as 15 minutes to establish likelihood of CHF or current status of a CHF patient.

- Recommended in the 2002/03 Canadian Cardiovascular Society Concensus Guideline update for the diagnosis and management of HF
- Reduced clinical indecision amongst ED physicians by 74%\*
- Corrected 96% of misdiagnosis in initial studies\*
- Convenient portable device designed for use in any medical setting

*"In conclusion, we found that when used in conjunction with other clinical information, rapid measurement of B-type natriuretic peptide levels in the emergency department improves the care of patients with acute dyspnea and thereby reduces the time to discharge and the total cost of treatment."*

Use of B-Type Natriuretic Peptide in the Evaluation and Management of Acute Dyspnea. Christian Mueller, M.D., André Scholer, Ph.D., et al. New England Journal of Medicine 350; 76 February 12, 2004

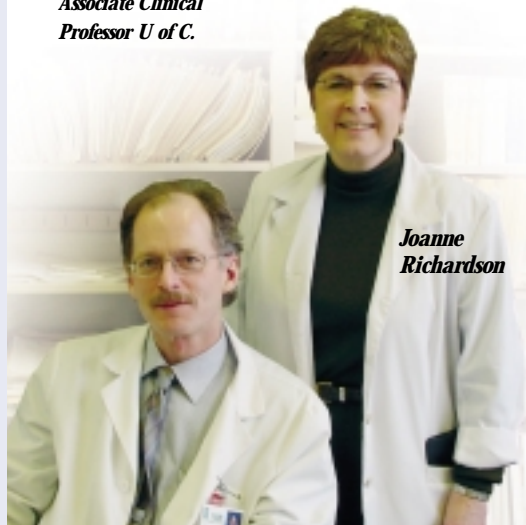
### And always there is the question of cost?

**Barb Jones (RN Transplant Clinic):** For the most part, Triage® BNP is saving money in a global way. It helps to ensure that patients are not hospitalized inappropriately for SOB, but the majority of savings are because we can treat them more carefully and prevent re-hospitalization ultimately improving patient outcome.

**Joanne Richardson:** BNP may cost more money initially because when this patient comes in we spend the money for a test and go ahead with treatment; but that's initial outlay. In the past we would have waited a few more weeks observing, the patient may possibly have gotten worse, have to get admitted and consequently take longer hospitalization or may have died. That was not cheaper and certainly not ideal.

*"The Cardiac Transplant and Cardiac Function Clinics are great assets to the Calgary Health Region and the highly trained and dedicated nursing staff is the primary reason for success. The availability of expert help and specialty testing are also valuable factors. Triage® BNP is one of the specialty tests that helps us manage these patients more efficiently and I see it becoming more and more important."*

**Dr. James McMeekin**  
Clinical Cardiologist FHH,  
Associate Clinical  
Professor U of C.



Joanne Richardson

Tracy French

Terry Churchill-Smith

Bonnie Baptie



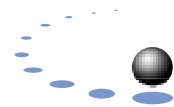
### What do you think of testing Triage® BNP at the Point of Care?

**Terry Churchill-Smith (RN Transplant Clinic):** I think it allows for a much more efficient and effective continuum of care, not only because Triage® BNP gives us excellent information but the results are readily available while we are with the patient making their clinical assessment. Testing at the point of care also reduces the overall waiting time which is important both for our patients and our clinicians.

**Barb Jones:** We have been asked to do STAT BNP levels on patients by our ER and it has resulted in patients not being admitted because of it. From a heart failure point of view, this is an excellent example of how helpful it is.

### What gives you the most satisfaction in your clinic?

**Dr. Isaac:** We love what we do and have the best heart failure staff that a medical facility could ask for. We are proud of both our staff and our patients who work so hard towards adding years to life and life to years.



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