



Royal Columbian Hospital uniquely cares for high-risk maternity mothers and their unborn babies

LIFE-SAVING INTERVENTIONS AND MIRACLE BABIES

If you are a pregnant woman living in British Columbia and you are facing complicated health and medical issues, where do you go? Royal Columbian Hospital (RCH) is the answer. It is the only hospital in the province that can care for a mother and her unborn child if they are involved in a motor vehicle collision or if the mother has a serious heart, renal or neurological condition that requires immediate treatment. “Our team rises to the occasion on a regular basis, responding to high acuity and some pretty critical situations with outstanding results. We care, and that makes all the difference,” says Monica Nicol, Interim Director, Clinical Programs, Maternity/Neonatal Intensive Care, RCH. Amie MacNeil, Shannon Gaudette and Chantal Dueck will tell you that being admitted to RCH meant the difference between life and death for them and their unborn babies

THE RIGHT PLACE AT THE RIGHT TIME

Amie MacNeil, a 27-year old mother from Abbotsford, was advised to have her baby at RCH, a high risk maternity hospital, because she had suffered hydrocephalus (swelling on the brain) during infancy. This cautionary advice saved her life. After a perfectly healthy pregnancy and birth, a gorgeous little boy named Jacob was born in December 2009. Amie had a postpartum hemorrhage (her uterus would not contract). This resulted in a cascade of interventions from drugs to surgery to help contract the uterus. As her gynecologist, Dr. Peter Beresford, and his team worked to stem the hemorrhage, Amie went into cardiac arrest. One of the attending anesthetists, Dr. Robert Sharpe, is also a cardiac surgeon, and together with Beresford worked on saving Amie's life. Amie was put on ECMO (extracorporeal membrane oxygenation – a machine that allows for the recovery of the lungs and heart) and was placed in an induced coma for 12 days.

During this time, Todd MacNeil knew that he was in danger of losing the love of his life. Emotionally conflicted, Todd's attention was split between the joy of his first born son and the devastation of possibly losing Amie. After almost a month in ICU and High Acuity, Amie went home, fully recovered. Recently Amie and Todd have adopted Nolan, who is now 17 months old. This completes their happy family of four.

“If I did not have our baby at RCH I probably would not have survived,” says Amie. “I was in the right place at the right time and that saved my life.”



AMIE AND TODD MACNEIL RELAXING AT HOME WITH JACOB AND BABY NOLAN.

A BEAUTIFUL TWO YEAR OLD MADELINE SMILES WHILE SEATED BETWEEN HER PARENTS BRAD AND SHANNON GAUDETTE.



A MIRACLE!

“I shouldn't be alive...my baby girl shouldn't be alive...but we're both here thanks to Royal Columbian Hospital,” says Langley resident Shannon Gaudette, 39, who had two malignant tumours removed from her brain, one the size of an orange, the other the size of a lemon.

Shannon enjoyed a healthy pregnancy until May 21, 2011 – the day her foot went numb. Assuming it was a normal symptom of pregnancy, she didn't think much of it until her condition grew worse. “I started feeling weak...not well, and my handwriting was going wonky,” recalls Shannon. An emergency MRI scan at a local hospital showed two large masses in Shannon's brain. “We were astounded,” recalls

Brad, who was told that there wasn't anything that could be done for Shannon except ease some of the pressure being caused by the tumours. There was a chance that they could keep Shannon alive long enough to deliver the baby, but she would need to be transferred to Royal Columbian Hospital, as there is a team of neurosurgeons, high-risk maternity and neonatal intensive care specialists all under one roof.

RCH Neurosurgeon Dr. Richard Chan was on-call when they arrived at RCH on the night of Saturday, June 11. Upon meeting Brad, Dr. Chan, referring to the two malignant tumours in Shannon's brain, simply said: “They've gotta come out.” Brad kissed his wife goodbye as she was wheeled into the OR, not knowing if Shannon or their baby would survive. After six hours in surgery, Dr. Chan emerged saying, “I got it all and the baby is fine.” “I can't express what a relief it was,” says Brad.

During the next few weeks at RCH, Shannon slowly regained her ability to walk, talk and function normally again. Shannon continued to recover through her stays in the Intensive Care, High Acuity, Neuro and High-Risk Maternity units. On August 5, although eight weeks premature, a healthy beautiful little girl named Madeline was born.

“I'm so thankful that we are here,” says Shannon. “I cherish every day that I get to spend with our daughter, because we weren't supposed to be here.”



A reason to care.
A reason to give.



Reasons to Care. Reasons to Give.



ROYAL COLUMBIAN HOSPITAL LOOKS AFTER MORE MICRO PREMATURE BABIES (BABIES BORN BEFORE 26 WEEKS GESTATION) THAN ANY OTHER NICU IN BRITISH COLUMBIA

HIGH RISK, HUGE REWARDS

In December 2006, Chantal and Shane Dueck were making life-and-death decisions. Chantal, 27, who was four months pregnant with her second child, was admitted to her local hospital in Abbotsford suffering from an escalating series of symptoms. When her fingers and toes turned blue, leaving her in excruciating pain, she knew it was something much more serious.

After numerous tests and two heart scans at Royal Columbian, the problem was diagnosed. She was suffering from endocarditis, a life-threatening infection that destroys the inner lining of the heart and its valves. Without open heart surgery to replace a damaged valve, heart failure was inevitable. The surgery would save Chantal's life but it would almost certainly prove fatal for the baby she was carrying. Chantal was reeling. "I remember feeling completely numb hearing this news," recalls Chantal.

At first the couple hoped that they would be able to delay surgery until the fetus had reached 26 weeks, improving its chances of surviving the surgery. Unfortunately, waiting was not an option. As Clinical Nurse Specialist Jocelyn Reimer-Kent explains, "In an ideal world we would have held off doing surgery for as long as possible to get the infection under control. But we were not able to do that because with repeated cardiac ultrasounds we were able to see that we were not winning the battle."



A multidisciplinary team that included cardiac, surgical and neonatal specialists collaborated to examine every aspect of surgery protocol to identify and try to lessen the negative side effects for the fetus. The valve replacement surgery was scheduled for January 4.

The operation ran smoothly and was completed in just four hours. While Chantal was still unconscious, an ultrasound was taken of her abdomen and the rhythmic whoosh of a fetal heartbeat filled the room. "The room erupted in applause," Chantal reports, "and my husband fell to his knees in tears when Dr. Latham gave him the news."

On May 30 Brielle was born, a perfect and healthy baby girl weighing

CHANTAL AND SHANE DUECK WITH THEIR DAUGHTER BRIELLE AND SON CHASE.

six pounds, eight ounces, and one of only 12 babies in the world to survive such an ordeal. Chantal's heart has now fully recovered.

"At Royal Columbian we have the sub-specialties that are required for cases like these and we have a can-do attitude. When we are faced with a significant challenge, we embrace it. We give our mothers, their unborn children and premature babies the best care we can possibly give," says Dr. Zenon Cieslak Paediatrician-neonatologist, RCH.

ROYAL COLUMBIAN HOSPITAL FOUNDATION IS CURRENTLY RAISING MONEY FOR THE 'TINIEST OF BABIES'

Serving the province of British Columbia, 87% of RCH's maternity patients are from outside the Fraser Health region.

20% of maternity patients cared for at RCH are considered high-risk.

Royal Columbian Hospital (RCH) is home to a provincial advanced Neonatal Intensive Care Unit that provides highly specialized care for newborns who are:

- extremely premature, born as early as 23 weeks into pregnancy and weighing less than 500 grams (the equivalent weight of a loaf of bread)
- critically ill

Since 1997, the Canadian Neonatal Network has recognized RCH's Variety NICU as consistently ranking among the top in the country for achieving excellent survival rates for neonates (babies who are born before their due date) and very low rates of complications related to prematurity.

Sweet dreams can save a life!

The Royal Columbian Hospital Foundation is currently raising funds for a Life Pulse High Frequency Jet Ventilator. This is a highly

specialised piece of equipment for the tiniest of babies. "As soon as we ventilate a baby, we risk long term damage," explains Terry Welykholowa, Manager, Clinical Services, High Acuity and Respiratory, RCH. The jet ventilator's unique, gentle pumping action uses small vibrations to help the babies breathe rather than forced pumping. Consequently, there is less risk of trauma to their extremely fragile lungs. The gentleness of the jet ventilator also means a shorter recovery time, and often better long-term outcomes due to less risk of damage to the lungs. Its use is becoming best practice throughout NICUs in Canada.

RCH's Variety NICU currently owns one jet ventilator. "Royal Columbian looks after more micro premature babies (babies born before 26 weeks gestation) than any other NICU in British Columbia and what keeps me awake at night is that if the one we have breaks down, what will happen," asks Welykholowa.

The cost of a new Life Pulse High Frequency Jet Ventilator is \$48,000. If you are interested in donating toward this purchase, or to donating to the Royal Columbian Hospital Foundation call 604 520 4438 or visit rchcares.com.



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