Royal Columbian Hospital uniquely cares for high-risk maternity mothers and their unborn 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 of her history of antiphospholipid syndrome (APS), previous miscarriages and a previous stillbirth of her first pregnancy. The condition can cause fetal death, placental abruption, or pre-eclampsia. Amie’s baby, Nolan, was born 8 weeks premature, weighing 1.75 kg (3 lbs 14 oz), with a heart condition called coarctation of the aorta, a condition that needs surgery when the baby is older, and pulmonary hypertension. Amie went into cardiac arrest. One of the attending anesthesiologists, Dr. Robert Sharpe, is also a cardiac surgeon, and together with Benedetto worked on the haemorrhage. Amie went into cardiac arrest. One of the attending anesthesiologists, Dr. Robert Sharpe, is also a cardiac surgeon, and his team worked to stem the hemorrhage. Amie was put on ECMO (extracorporeal membrane oxygenation) – a machine that allows for blood to be redirected away from the heart while the lung is being ventilated. From there, the attending anesthesiologists worked on the heart to get it in a condition to function. This included drug interventions from drugs to surgery to contract the uterus. As her gynecologist, Dr. Peter Beresford, and his team worked to stem the hemorrhage, Amie 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 completion for a happy family of four.

“I didn’t have our baby at RCH, I probably would not have survived,” says Amie. “I am so thankful that I was here at the right time and that saved my life.”

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 in her brain. Shannon enjoyed a 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 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 the next few weeks at RCH, Shannon slowly regained her ability to walk, talk and function normally again. “I got it all and the baby is fine.”

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 another hospital, for definitive surgery. “They’re not sure what they’re going to do, but there is a team of neuroradiologists, high-risk maternity and neonatal intensive care specialists all under one roof,” says Brad.

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.”

During the next few weeks at RCH, Shannon slowly regained her ability to walk, talk and function normally again. Shannon continued to recover through home stays in the Intensive Care, High Acuity, Neonatal 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 my daughter, because we weren’t supposed to be here.”
In December 2006, Chantal and Shane Dueck were expecting their second child, a girl. At 32 weeks pregnant, Chantal was rushed to Royal Columbian Hospital in Abbotsford suffering from an escalating series of symptoms. When her fingers and toes turned blue, hearing 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 the fetus's life but it would almost certainly prove fatal for the baby she was carrying. "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, reasoning that they would be able to delay the negative side effects for the fetus. The 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 was quiet," Chantal reports, "and my husband felt his knees in tears when Dr. Latham gave him the news." On May 30, Brielle was born, a perfect and healthy baby girl weighing six pounds, eight ounces, and one of only 12 babies in the world to survive a significant birth defect.

A multidisciplinary team that included cardiac, surgical and neonatal specialists collaborated to examine every aspect of surgery protocol 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.

Since 1997, the Canadian Neonatal Network has recognized ROYHS 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 money for the ‘Tiniest of Babies.’

ROYAL COLUMBIAN HOSPITAL FOUNDATION IS CURRENTLY Raising MONEY FOR THE ‘TINIEST OF BABIES.’

The jet ventilator’s unique, gentle approach 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.

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The Royal Columbian Hospital Foundation is currently raising funds for a Life Pulse High Frequency Jet Ventilator. This is a highly specialized piece of equipment for the tiniest of babies. ‘As soon as we ventilate a baby, we risk long term damage,’ explains Terry Rych- howe, 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.

ROYHS Variety NICU currently owns one jet ventilator. ‘Royal Columbi- an 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 new one we have breaks down, what will happen,’ says Welykholowa.

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