

DIRECTIONS

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Blackbird Physiotherapy

CHANGES PATIENT CARE

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PRIVATE/PUBLIC COLLABORATIVE HAND CLINIC CHANGES PATIENT CARE



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In a small physiotherapy clinic in the southeast interior of British Columbia, three women are changing the paradigm of what it means to provide collaborative health care.

Blackbird Physiotherapy: Hand to Shoulder Centre is a private clinic in Nelson, B.C. specializing in hand to shoulder rehab. Run by Jodi Dool (Certified Hand Therapist and physiotherapist) and Christy Macfie (Certified Hand Therapist and occupational therapist), it serves the east and west Kootenays, a geographically vast region with a population of 60,000 spread over Trail, Castlegar, Cranbrook and Nelson. Industries in the area are heavy in hand injuries (forestry, mills, smelters), and the population is very active in outdoor pursuits.

Over the past 18 months, Dool and Macfie have established a ground-breaking partnership with Dr. Lee-Anne Laverty, an orthopaedic surgeon with a sub-specialty in hand and wrist reconstruction working at Trail Regional Hospital. Roughly once a month, Dr. Laverty drives 70 kilometres north up Hwy 22 to participate in a truly innovative endeavour in the landscape of primary health care in the province.

After working with Dr. Laverty for eight years (building the relationship, gaining the doctor's trust and referrals) Jodi and Christy recognized an opportunity to build a bigger partnership — the ultimate goal being to enhance patient outcomes and work as a team to provide leading-edge integrative medicine. And so was born a monthly Hand Clinic where the three clinicians work side-by-side seeing patients and problem-solving together to come up with best-case scenarios for their surgical and non-surgical patients.

Province-wide, wait times for surgery are long and some patients, because of financial circumstances, have no choice but to undergo the wait. To add fuel to the fire, smaller regions of the province do not have enough surgeons to manage the patient load — Dr. Laverty's waitlist is currently 850 and she is a solo sub-specialist in her group.

The Hand Clinic team wanted to explore a new model of care — an exceptional model of care where they could treat patients in a nourishing environment outside of the hospital setting.

They also wanted to more efficiently and effectively identify patients for non-surgical intervention; work more collaboratively with patients who were in rehabilitation for advanced surgeries; and explore state-of-the-art techniques for complex surgeries and rehab. By 2015, their vision came to fruition, with five Hand Clinics taking place in 2015 and twelve in 2016.

Over this short time, this trio of practitioners has seen a diverse cohort of patients, who come from all over the region for consults, pre-surgical preparation and post-surgery rehab. Each patient is seen by all three specialists together, with everyone weighing in on each clinical case to determine the best course of action. Sometimes surgery is inevitable, but sometimes the initial conversation with new consults turns to a discussion about non-operative solutions and a plan to move forward without surgery.



YOKE SPLINTS

(Relative Motion Orthosis)

The goals of a relative motion splint are to limit full flexion at the Metacarpal-phalangeal (MCP) joints and to facilitate increased motion at the more distal PIP and DIP joints. It is a neuro-integrative way of increasing flexibility and range of motion in the hand. Blackbird has achieved some incredible results using these active re-direction splints for PIP joint stiffness.

“It’s really about re-establishing normal motor control,” says Jodi. “We make a splint that blocks the normal joints so stiff joints receive the muscle power to move. I’ve seen a woman with post fracture PIP joint flexion contracture of 60 degrees improve to 20 degrees within a couple of weeks of wearing a splint that blocks the MCP in flexion and forces the extension to come from the PIP joint.”

K-TAPING FOR EDEMA

Resulting edema from hand injuries and surgeries is one variable that clinicians spend a lot of time trying to manage as it’s difficult for patients to obtain range of motion with swollen digits.

K-taping helps reduce swelling by promoting circulation in the inflamed area, encouraging lymphatic drainage, and increasing blood flow and oxygenation of the tissue.

Being able to capture those patients who have options for conservative management has been one monumental outcome of the collaboration. Together, they have identified that over 50% of Dr. Laverty’s patients are non-surgical — people with minor injuries (i.e. stiffness, limited range of motion) who, 99% of the time, can be managed with therapy, serial splinting, and/or yoke splinting.

For the therapists, seeing these patients with the surgeon present is a big piece of the puzzle. Dr. Laverty can validate conservative intervention even when they come in “wanting” surgery, feel going under the knife is inevitable, or have the idea that “physio isn’t doing everything that can be done”.

In turn, Dr. Laverty sees huge benefits from having the therapists in the room as well. “It really helps a lot to have the therapists give an objective view of the situation and provide information,” says Dr. Laverty.

Hand Therapists are able to offer both therapy and splinting, which is a unique skill set required to treat these patients.

“What we do is expanding the reach and scope of the physical therapy profession,” says Jodi. “Sometimes the most challenging thing in surgery is the decision to have surgery or not. Both Jodi and Christy are very keen and capable hand therapists. Both do splinting and therapy and they offer an optimum crossover between splinting and hand therapy. They can give patients options.”

When Surgery is the Only Option

For some of the Hand Clinic’s patients, surgery is the only option. In these cases, the benefits of the unique partnership between Blackbird and Dr. Laverty become even more apparent.

Having experienced hand therapists at the ready is critical for a surgeon. Hand surgery is 50% surgery and 50% therapy — you can have the best hand surgeon in the world, but without post-operative rehab the surgery is worth nothing.

Beyond simple hand surgeries, the therapists open up options as well for Dr. Laverty to do complex procedures requiring advanced levels of tertiary care. Because of Jodi and Christy, she is able to perform full rheumatoid hand and wrist reconstruction (for example), as well as surgeries for severe injuries such as tendon laceration and

Jodi, Christy and Dr. Laverty have done something incredibly special in the creation of the Hand Clinic.

crush injuries where state-of-the-art therapy is absolutely necessary. These kinds of advanced surgeries are typically seen only in larger urban/metropolitan centres with deep pools of resources.

Dr. Laverty is the first to say how much she has learned from Jodi and Christy, integrating cutting-edge therapeutic modalities into her practice as a result of the partnership. "With surgeries such as rheumatoid reconstruction, splints with outriggers are required so patients can actively flex their fingers and protect their extensors. You have to have a lot of experience to do this kind of splinting and rehab, and

if I didn't have Jodi and Christy, I couldn't do that kind of surgery. It wouldn't be fair to the patient."

This uncommon resource, in this small corner of the province, happened only because three passionate clinicians saw a need to offer their patients effective solutions in their local community, and pushed it forward with passion and a quest for personal and professional growth.

There is no established model here to fund or support this kind of private/public collaborative care but the team at Blackbird has managed, through creative solutions, to offer this care at no cost to the patients. We can only hope that endeavours such as this can possibly pave the way for the further evolution of clinical practice. Through sharing and learning from each other, this unique group has cultivated a meaningful partnership that allows them to achieve successful patient outcomes and grow within their own individual professions.



This patient had joint replacement surgery and came all the way from Cranbrook to the Hand Clinic for follow-up. The clinic worked very well for him as he got all his post-operative follow-up, splinting and therapy in one stop. Christy did the majority of his post-surgical work, including building him a beautiful dorsal outrigger splint to keep the MCP joints in alignment while he healed and to encourage good gliding. He also had a resting splint for night time. His Hand Clinic was also used to review appropriate active and passive range of motion exercises, scar massage, swelling control, and then eventually functional activities and strengthening. He could not come for therapy (due to distance) so his appointments were used to ensure he had a good understanding of his comprehensive home exercise program.