Hello and welcome to the second edition of ‘Under Pressure’, 3M’s Compression Newsletter. We hope you enjoyed the first edition. We have once again aimed this informative newsletter at those health care professionals who are involved with Compression therapy, whether for the management of wounds, chronic oedema or lymphoedema.

Compression therapy has been proven as an essential component in the continuous therapy of oedema management in both Venous Leg Ulcer and Lymphoedema patients. It is well researched and fits in to guidelines all over the globe. As we learn through research, health care moves more toward a preventative model to ensure better outcomes and improved quality of life for patients. Also, with a multidisciplinary team approach and a combination of treatment therapies, outcomes for patients continue to improve reducing the impact of long term oedema in their lives.

Secondary Lymphoedema occurs most commonly following the treatment for cancer. In Australia more than 60% of people diagnosed with cancer will survive more than five years after diagnosis.1,2 The survival rate for many common cancers has increased by 30 per cent in the past two decades in Australia and by more than 25 percent in New Zealand.1,2,3 As survival rates increase, quality of life becomes an important issue for survivors. Lymphoedema has a potential to severely impact quality of life. Within this issue we explore the practice of monitoring for the early detection of breast cancer related Lymphoedema. This issue includes a case study where early detection has been successful in reducing the progression to later stage lymphoedema. A review of the management of breast oedema is also included.

For the wound care professionals, this edition examines the combination of compression and Hyperbaric Oxygen Therapy for the management of chronic wounds. There is also a case study which outlines the management of a 95 year old patient with a skin tear where the multidisciplinary team approach was a key factor in the patient’s positive outcome.

Once again, we hope that you will enjoy reading ‘Under Pressure’ and we value your feedback and comments. If you would like to share your experiences and thoughts in this important aspect of patient care please feel free to contact us.

Ruth Timmins
Compression Specialist, Australia
3M Critical & Chronic Care Solutions Division
ratimmins@mmm.com

Paula Massey
Technical Specialist, New Zealand
3M Critical & Chronic Care Solutions Division
pmassey@mmm.com

Some patients are at their wits end as they manage their chronic wounds. At Wesley Centre for Hyperbaric Medicine, ours go to great depths - 2.4 atmospheres absolute or 46 feet sea water to be exact - and often with a 3M™ Coban™ 2 Layer Compression bandage wrapped on.

There is no doubt that the success we have in chronic ulcer wound healing is due to the combination of Hyperbaric Oxygen Therapy and Compression bandaging. Many people in the wound world are familiar with the benefits of the Compression bandage so I will now share with you some information on Hyperbaric Oxygen Therapy (HBOT).

Hyperbaric Medicine is a subspecialty of the Faculty of Anaesthetics. HBOT as a medical treatment for certain conditions was first used as far back as 1956 before the invention of the heart/lung bypass machine. Since then hyperbaric oxygen therapy has become a major adjunct in the treatment of many conditions that do not respond to any other form of medicine. Not only for wound healing, but also radiation soft tissue injuries, necrotising soft tissue infection, central retinal artery occlusion, crush injuries and others. Current research indicates that HBOT is a fundamental tool in the treatment of diabetic wounds, and, that early intervention using hyperbaric oxygen plays a key role in wound healing and prevention of amputations.

Patient selection for HBOT treatment usually requires the demonstration of low oxygen levels in the skin around the wound. If the oxygen level around the wound is low (hypoxia), the test progresses to an oxygen challenge. A significant improvement into the normal oxygen range is indicative of potential benefit from HBOT. Wounds are comprehensively reviewed. If no response is apparent then HBOT is stopped. Responding patients undergo an average of 30 treatments.

How is HBOT Delivered?

Patients receive HBOT while they sit in a pressurised ‘room’ breathing 100% oxygen using a mask or hood for approximately 1 hour 50 mins. This increases the level of oxygen delivered to the tissues, which in turn, stimulate and supports growth of small blood vessels and replication of the cells that form new tissues in wounds. The effect of breathing pure oxygen under this pressure is to increase the amount of oxygen the patient normally receives by between 10 and 15 times. This means that more oxygen can be transported to the wound site, thus increasing the ‘reach’ of the oxygen into the affected area by a factor of four.

The Benefits of HBOT

- Increased oxygen delivery to hypoxic tissues
- Stimulation to healing through intermittent hyperoxia which is the principal mechanism of the use of HBOT for chronic wounds. Periodic elevation of the oxygenation gradient between normal and chronic wound tissues accelerates collagen deposition and angiogenesis into the wound space.
- Hyperoxic antibiotic activity. HBOT has been shown to be bacteriostatic in many species of bacteria. In addition, intermittent hyperoxia facilitates bacterial killing through oxygen dependent lysosome activity within leukocytes in hypoxic wounds, and hyperoxia appears to have a synergistic effect with antibiotics (the aminoglycosides for example).

The Wesley Centre for Hyperbaric Medicine has been in partnership with 3M for both the management of their chronic venous ulcer patients (1/3 of all the wound patients seen at the Wesley Centre require 3M™ Coban™ 2 Layer Compression System) and also importantly, with the exciting research which is being undertaken with QUT, Wound Management Innovation CRC and The Wesley Research Institute. Unfortunately 15-30% of chronic venous leg ulcers don’t respond to Gold Standard compression alone. Preliminary research is showing that the combination of compression bandaging and HBOT is likely to yield better results and in a shorter time frame enabling people to get back to their lifestyle sooner. The research...
has been ongoing for almost two years. 3M have always been available for support to the Wound Care Nurses with one on one attention for patients and new staff. With all those involved, the research partners, The Wesley Centre for Hyperbaric Medicine and 3M, the partner we value the most is the patient - after all they are the ones going on the dive!

The Wesley Centre for Hyperbaric Medicine works closely with the patient’s team of professionals and family so as to provide a holistic environment to the management of the patient’s wound their comorbidities and lifestyle challenges.

For any enquiries regarding Hyperbaric Oxygen Therapy or becoming a Hyperbaric Nurse please contact our Nurse Manager, Sharon on Sharon@wesleyhyperbaric.com.au or our Medical Director on Andrew@wesleyhyperbaric.com.au
Under Pressure 3M COMPRESSION THERAPY NEWSLETTER

Q: What is the difference between Coban 2 and Coban 2 Lite?

A: Coban 2 Layer Lite Compression System has been engineered to provide the same working dynamics as the original Coban 2 Layer Compression System, with a 25% reduction in resting pressures. Coban 2 Layer Lite Compression System provides an effective, comfortable option for patients less tolerant of compression such as those with mixed aetiology ulcers, who are new to compression or are frail. It is suitable for and well tolerated by patients with ABPI of 0.5 and above. When used for the treatment of Lymphoedema, Coban 2 Layer Lite Compression System is indicated for upper limbs, fingers and toes.

Q: Do you need to measure the ankle when using Coban 2 Layer Compression Systems?

A: No, you do not need to measure the ankle, or use different size kits. One size fits all.

Q: Does Coban 2 Layer Compression System contain Latex?

A: No, Coban 2 Layer Compression System does not contain latex and is made from hypoallergenic and breathable materials.

Q: Can Coban 2 Layer Compression System be used for less mobile patients as I thought only elastic bandages could be used?

A: Yes, Coban 2 Layer Compression System can be used in less mobile patients as it is possible to achieve periods of pressure change through passive movement of the ankle or toes by a carer or health care professional.

Ask CONNIE COMPRESSION

We invite you to send in any questions you have relating to compression therapy or 3M™ Coban™ 2 Layer Compression System. We’ll publish a selection of our questions each issue, along with answers from our team of international experts. This month we have collated questions that we are commonly asked in workshops.

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Have you seen?

We would like to share with you a recent international publication from the Wounds International Journal – Principles of compression in venous disease: a practitioner’s guide to treatment and prevention of venous leg ulcers.

The three main authors of this publication, Professors Hugo Partsch, Christine Moffatt, and Nurse Consultant Kathryn Vowden are all internationally recognised, and have contributed significantly to the literature around the understanding and management of venous and lymphatic disorders.

We also encourage you to take a look at the International Lymphoedema Framework Position Document - Compression Therapy: a position document on compression bandaging.

This document seeks to draw together the current evidence base supporting compression as well as celebrating the wealth of international variation in the way in which compression bandaging is used in clinical practice.

You can download this publication from their website: www.lympho.org

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The recent Breast Cancer Awareness month in October 2013, demonstrated that breast cancer still has a significant impact on women worldwide. In 2009, breast cancer accounted for 23% of diagnosed female cancers worldwide, and within Australia over 27% of newly diagnosed cancers were breast cancer. Treatment is continuously being improved with advanced surgical techniques and targeted adjuvant therapies bringing the 5 year relative survival rate as high as 89%. However, despite improved techniques such as sentinel lymph node biopsy and breast conserving surgery such as lumpectomies, post-surgical morbidities such as arm lymphoedema are still common. Due to a wide variation in diagnostic methods and timing of measurements, there are only estimates of lymphoedema prevalence in breast cancer patients. In Australia, it is estimated that at least 20% of women who have undergone treatment for breast cancer are affected with arm lymphoedema. The presence of breast or upper trunk lymphoedema is less extensively researched. As highlighted by Williams and Carati et al the arm, breast and upper quadrant of the trunk share a lymphatic drainage pathway. Naturally, if the arm is affected, it is likely that areas of the upper trunk will also be affected. In addition, the now commonly performed breast conserving surgery such as lumpectomy is often followed by radiotherapy, which increases the occurrence of skin inflammation (causing a higher lymphatic load), tissue scarring and fibrotic tissue development.

As a lymphoedema therapist, you will often meet a patient with arm lymphoedema (post breast cancer) where the patient describes pain, numbness, tightness and discomfort of the breast or a specific trunk region, as well as the arm. Although the swelling may not always be clearly visible, an examination by palpating the anterior, posterior and lateral sites off the trunk could provide valuable additional information about oedema in these locations. As part of this assessment, a detailed clinical history in addition will alert you to other possible reasons for the swelling such as recurrent malignancy, erysipelas or other inflammatory events. The occurrence of these events leads to increased lymphatic load on an already compromised system. The shape and location of the breasts mean it is difficult to objectively measure fluid and tissue changes in them easily. Despite improving techniques in this area, while informative and it can help in treatment indications, some have yet to reach a recommendation for best practice in measuring breast lymphoedema. For example such measurements for clinical use include breast weight and the Moisture Meter D (Delphin, Finland) which measures site specific fluid epi-fascial fluid via di-electric constant. Also useful is the bio-impedance spectroscopy (impedimed, Australia) that can measure local area fluid in 4 quadrants of the breast.

Common practice in the treatment of breast oedema is: manual lymph drainage (self-management), light exercise as is best practice for the arm, and deep breathing. Emerging is the use of a specific taping technique as a supporting treatment in lymphoedema management. Various applications of lymph taping include taping on the proximal posterior and anterior side of the trunk as to create space to stimulate lymphatic pathways development across watershed. Also taping directly on the affected breast is proven to be useful in the reduction of fluid, tension and pain relief.

Compression therapy as until this day is the gold standard in the treatment of lymphoedema. Compression application for breast oedema or trunk oedema is challenging. Various compression methods are available from long or short stretch bandages to fitted tops and bras. Pressure is difficult to control, and relies in a large part on the patients’ feedback and the therapist experience. The compression application of 3M™ Coban™ 2 Layer Lite Compression System allows for a controllable compression application that is suitable for almost all breast oedema patients. Its application is easy, and repeatable. From my own experience patients subjective response is that it feels “comfortable” and provides pressure at the locations that “feel most in need”. Being able to trim the compression suitable to the individuals need is a great advantage. The moulding ability of the Coban 2 Layer Lite Compression System material ensures the shape is adapted for comfort and mobility is not restricted.

A case study completed by A. Nieuwenhuijsen showed that the Coban 2 Layer Lite Compression System application for the treatment of post breast cancer seroma formation had a clinically positive effect. Also subjectively it was reported that the patient found the pressure “comfortable.” As with all bandaging, it is important to record or review the patient’s medical and surgical history and to be vigilant for skin irritation and fungal infections. More research is needed in this field of breast and trunk oedema. I believe as therapists we need to share case studies, experiences, and ideas. I am passionate about this area of lymphoedema, and I believe we need to communicate to patients, therapists and to the general public that this is a problem that needs addressing!

* Malou is a skin and oedema therapist and a current PhD candidate. Previously she was based in the Dermatology Department of Martin Hospital, Groningen, the Netherlands. Malou presented at the International Society of Lymphology conference in Sydney (2009) where she learned about the Flinders Lymphoedema Assessment Clinic. The research work undertaken in the clinic led her to move to Adelaide to work and study further with the Flinders Lymphoedema Research Unit. Currently, as well as participating in clinical trial measurement and processing, she is undertaking her Master Thesis research.

I will share with you the story of my journey from a General and Obstetric Nurse, to a Specialty Clinical Wound Care Nurse. Nursing has been a big part of my life, and like many, I have combined my nursing career with bringing up a family. After marrying and shifting to Tahtape, where husband John had a transfer as a Stock agent, I was unable to get a job at the local cottage hospital. And so, I took a role with Ministry of Agriculture and Fisheries bleeding cattle for brucellosis testing until a staff nurse position became available. That first nursing role was a real learning curve - being the youngest staff nurse by a country mile in the cottage hospital. I ended up with the tough shifts, including managing the maternity annex, which was functioning without a midwife. This was a very small hospital - the general maintenance engineer was also the Radiographer and ambulance driver. I certainly increased my knowledge of the acute management of patients - ranging from road accidents to palliative nursing.

After leaving the stock firm, John managed a sheep and beef station, where I worked as a Shepard for 18 months, before we purchased our own small farm east of Masterton. The first four years I nursed in the maternity annex of Masterton hospital doing night duty. Then, the rural nurse position became available in our area, and I ran this for 17 years, gaining experience in all fields imaginable, and up-skilling in the areas needed to enhance the service. It was a 24/7 position (not paid accordingly) where one worked and lived in the community. I had a clinic on our farm, so I was in the first response team for the ambulance service. We had an Accident Compensation Corporation (ACC) contract for the myriad of suturing and accident cases, we provided regular district nursing, and also palliative nursing. This rural area had farming, forestry, and fishing industries, along with a coastal beach resort to which many folk retired.

Once selling our small farm and moving to the edge of the Marlborough Sounds in 2003, I joined the District Nursing team at Wairau Hospital visiting patients over a wide community. The area runs from Rai Valley to Kekerengu, including the Marlborough Sounds. The Wound Specialist Nurse position became vacant, and I was promoted in to the position, going from Wound Resource Nurse to Specialty Clinical Nurse in wound care. It was a huge journey to become recognised in the position, despite running the wound service from day one after stepping in to the role. I completed a Graduate Certificate in Wound Management at Christchurch Polytechnic Institute of Technology (CPIT). Unfortunately, the certificate wasn't recognised for the specialty role, so I then had to complete post graduate papers to maintain the current title. But, I would have to say that the CPIT was the best learning by a country mile.

The role of managing the wound service for Marlborough is still evolving, as are the wound challenges. I am also the wound resource person for the hospital and the District Nursing team. I also offer advice to the Practice Nurses and Aged Care Nurses, as well as also providing education. The position is only part time, hence I have two extremely busy clinic days a week, and many non clinical aspects of the job can be challenging when strapped for time.

After the retirement of our Vascular and General surgeon the general surgeons requested that I do initial nurse led vascular assessments to ensure the urgent lower limb cases were referred on to the Vascular Surgeon in Nelson in a timely fashion. Since running these clinics, which are now monthly, we have seen approximately 28% of patients requiring to be seen by the Vascular Surgeon, and the remainder are being managed conservatively, more often than not with compression therapy.

A large number of patients present in to the wound clinic with lower extremity oedema, and some with secondary oedema, so it was clear that I needed to formally learn about managing lymphoedema. The Orthopaedic Surgeons were also referring patients to shift oedema before joint surgery with compression therapy. I had some personal experience with lymphoedema after managing a child with Milroy’s disease, and through this I developed a network of advice contacts in this specialist field. Knowing that the World Health Organisation (WHO) consider it gold standard for Wound Specialist nurses to have lymphoedema training prompted my training in level one lymphoedema therapy. I privately funded this training, thereby freeing up DHB funding so that Abigail Whitelegg, our OT wheel chair/seating specialist, could also be trained. This was important because we had a gap in the service after the departure of our Lymphoedema Therapist. It is an ideal scenario to have two therapists within a hospital as we can support each other and pool resources. My lymphoedema learnings have had many positive outcomes within my wound practice, and for my management of my secondary lymphoedema patients to keep them leg ulcer free.

Mrs S, a 95 – year old who lives in a rural town, came to stay with her daughter in order see an eye specialist. Whilst staying there, Mrs S slipped on the carpet on the stairs and lacerated her lower right leg, lateral gaster extending to the pre-tibial site.

The resulting skin tear was classified under the STAR skin tear classification system as category 2b: “A skin tear where the edges cannot be realigned to the normal anatomical position and the skin or flap colour is pale, dusky, or darkened.”
Obstetric Nurse to a Specialty Clinical Wound Care Nurse

A skin care and wound management plan was put in place from the surgical ward with weekly dressing changes with compression therapy using 3M™ Coban™ 2 Layer Lite Compression System.

A silicone foam dressing impregnated with silver was chosen to provide the antimicrobial cover, and so that there would be no skin stripping with dressing removal, and the sealing of the wound with the silicone dressing would minimise the risk of maceration of the wound margins and peri-wound skin.

Photo Two, taken at two weeks, indicates that there was enough skin cells from the skin flap to generate epithelium in the wound bed, and devitalised tissue lifting.

Photo Three, taken at five weeks shows the remarkable healing with the wound reduced to three shallow areas: 1cm, >1cm and 2 cm. The remaining wound was a superficial 5 cm surface area.

Photo Four was taken at 13 weeks showing the wound almost healed.

The wound management plan remained the same until week 13. The treatment was then changed to a silicone dressing and a light compression stocking.

Along with wound care and compression therapy, the skin care regime was important to reach a positive outcome. The skin care regime consisted of a soap substitute to the lower leg and irrigate or shower the wound with warm water. Care was taken to dry the skin well.

It was important there was no moisturiser on the peri-wound skin as this would inhibit the dressing from conforming. Once the dressing was in place, 3M™ Cavilon™ Durable Barrier Cream was applied to the surrounding skin before application of the 3M™ Coban™ 2 Layer Lite Compression System.

Consent has been obtained for the publication of the photos and Mrs S was thrilled with the healing outcome of her skin tear.
Two case studies using 3M™ Coban™ 2 Layer Compression System

Kathryn Bourke
Physiotherapist and Lymphodema Therapist
Orange Health Service, NSW

Case Study #1 - Palliative

Patient history

- Mastectomy and axillary clearance performed.
- Metastasized to anterior and posterior chest wall and upper left arm.
- Swelling managed elsewhere with a circular compression sleeve and gauntlet.
- Presented to me 12/2/13 with a very swollen arm. The swelling was hard especially in the upper arm and there was pitting in the forearm. Patient was unable to move arm more than a few degrees in any direction due to lesions on chest wall, and in axilla and she had a ‘frozen’ shoulder.
- Unfortunately no initial measurements are available as the initial assessment sheet was mis-placed.

Treatment 1: Used Coban 2 Layer Lite Compression System with foam underlay from the mcp joints to upper arm. This was left on for 3 days and then re-applied after bathing. Patient and carer taught self-massage.

Treatment 2: The patient had found the Coban 2 Layer Lite Compression System bandaging comfortable and the arm was considerably decreased in size. The ‘woodiness’ in the upper arm was much improved and the forearm was soft and looked almost normal. There was no increase in movement and no decrease in pain.

I was using Coban 2 Layer Lite Compression System that I had left over from the workshop I attended, and I was running out of it. So I had to go back to ‘old’ bandaging of Softban® and Comprilan®.

Treatment 3: Patient not very impressed with Comprilan®. Increased markings on arm and didn’t like the feel: bulky and not as comfortable as the Coban 2 Layer Lite Compression System. Fortunately fresh supplies of Coban 2 Layer Lite Compression System arrived from 3M. The arm was washed and Coban 2 Layer Lite Compression System was re-applied.

Treatment 4: Swelling overall was much decreased and soft (photo 1) except above the bandaged area near the axilla.

The patient was going away for the weekend so I tried to make a ‘shoulder cap’ using over-lapping layers of Coban 2 Layer Lite Compression System to see if it could contain and soften at least the outside part of the upper arm above the bandaging (Photo 2).

Treatment 5: Patient wore the ‘cap’ for 2 days but then cut it off as it was annoying her. She felt it had made little difference to the swelling above the bandaging. At this point, I decided to measure for a sleeve as I felt the gains made had plateaued and the patient was quite unwell. I then bandaged the arm again with Coban 2 Layer Lite Compression System for 4 days until the garment arrived.

Treatment 6: There was some rubbing in the elbow as I had forgotten to add a separate piece of comfort foam to the area and the swelling in the upper arm was unfortunately increasing. The patient was very happy overall with the gains made due to the bandaging. She had no swelling of the hand throughout the bandaging and did not need to use the gauntlet. The swelling was soft and she had more elbow movement than pre-treatment.

Visit our websites

For more information on Coban 2 Layer Compression Systems, please visit our websites;
www.Coban2.com.au
www.Coban2.co.nz
Case Study #2 – Primary Lymphoedema

Patient history

- Referred from a large Sydney hospital.
- She has had primary lymphoedema since she was a child, mainly affecting her left leg. This is a genetic condition. Her mother and several female members of the family are similarly affected.
- Lymphscintigraphy showed that she has no lymph nodes in her left leg. Her right leg is beginning to swell also.
- She has managed the swelling all her life with compression stockings, and intervals of massage and bandaging.
- She had been treated and measured for knee high compression stockings and toe pieces in Sydney and was awaiting their arrival but was concerned that her left leg had increased in size in the interim, and that she would not fit the new stocking on the left side when they arrived.
- The bandaging that she was doing consisted of a Tribute padding with Comprilan bandages over the top. I offered to try 3M\textsuperscript{TM} Coban\textsuperscript{TM} 2 Layer Compression System to see if we could reduce the current swelling. The patient was willing to try it.

Treatment summary

- The only complaint registered by the patient was that her leg became very itchy when bandaged.
- In between the first and last pictures and bandaging, the patient had removed the bandaging due to the itching so that she could bathe, and had then re-bandaged with the Tribute and Comprilan\textsuperscript{®} until her next appointment.
- The stockings had arrived but the patient wanted to try the Coban 2 Layer Compression System one more time to regain the results she had had after the first treatment.
- Patient was very happy with the results post-bandaging.
- The ankle ridge was decreased.
- A large ridge beneath the great toe was markedly flattened and smaller ridges over the other toes were also decreased.
- The new stocking was fitted with no problems and the patient stated that it felt very comfortable.
- The patient was discharged from treatment.

Why I like Coban 2 Layer Compression System

- Very fast results. See patient #1 - had decreased swelling and woodiness by the second treatment.
- Decreased treatment time to obtain results with Coban 2 Layer Compression System as opposed to Comprilan bandaging.
- No need for daily bandaging - only done every 3 to 4 days. This means less appointments for the patient and frees up the therapist from daily bandaging.
- Cost benefits due to less treatment time.
- Better conformation to the limb.
- Less slippage of bandaging between treatments.
- Better tolerated by patient, able to get clothes on and off more easily.
- The Coban 2 Layer Compression System boot technique is so much easier to do than individual toe bandaging for the therapist and is just as effective. Also some patients don’t like having individual toes bandaged but tolerate the boot well.
- Only complaint I received from 2 patients was that they got itchy.
- My observation in patient #2 was a light heat rash.
Empowerment in Lymphoedema

Lymphoedema practitioners are encouraged to develop a therapeutic relationship with their clients and empower them to feel in control. Likewise lymphoedema practitioners need to feel empowered to have the knowledge and skills to promote best practice in lymphoedema management to their clients, service providers and key stakeholders. Lymphoedema practitioners need to have confidence in their skills to market themselves and their role in achieving best practice across the continuum of the lymphoedema spectrum. Lymphoedema practitioners are encouraged to take time out of their busy clinical roles to collect and analyse clinical data to monitor trends and outcomes to be able to provide feedback on outcomes to service providers.

The Australasian Lymphology Association (ALA) has been instrumental in striving for achievement of best practice in lymphoedema management over recent years.

The launching of its Position Statement - “Monitoring for the early detection and management of breast cancer related lymphoedema” has given lymphoedema practitioners a tool to use in lobbying local health districts for increased funding of services and / or redirecting existing services to be more proactive in identifying and managing sub-clinical lymphoedema in order to prevent or reduce the progression of later stage lymphoedema.

A case study using the “Early detection and management” model of practice

Mrs E (45 years) was referred to OT by her breast cancer surgeon for initial assessment and lymphoedema risk education prior to undergoing surgery for a self detected left breast cancer in May 2012.

Social history: Lives with supportive husband and two primary school aged sons. Large support network of family and friends

Psychological status on presentation: Positive attitude and committed to “beating this cancer”. Some degree of emotion and anxiety displayed due to her mother previously experiencing breast cancer treatment however “hopeful” since her mother is well 17 years post cancer and Mrs E wants to see her sons grow up. (OT previously treated mother for early lymphoedema symptoms)

Work history: Works 3 days / week in primary school office performing clerical / admin duties. Normally completes all household duties including keeping her boys busy with extra-curricular and sporting activities. Quite social and active family life.

Exercise history: Enjoys regular walking with friend, occasional swimming.

Cancer surgery: May 2012 - bilateral mastectomy with two stage reconstruction (expander) for left breast cancer + SNB + ALND, immediate implant reconstruction for right side

Pathology: Grade 2 Invasive ductal carcinoma (IDC), 90mm, 4/25 +LN, PR+ve, ER+ve, HER2+ve

Nil significant other previous medical history

Medical treatment: Chemotherapy – 4 x 21 day cycles FEC (fluorouracil - 5FU, epirubicin & cyclophosphamide); Radiotherapy – 6 weeks daily; Taxol – 12 x weekly; Herceptin - 17 x 3 weekly; Tissue expander - filling 6 months; Reconstruction surgery - implant

Tamoxifen – ongoing; Overall intensive treatment duration = ~14mths

OT Pre-operative Initial Assessment:

- Pre-op - Tailored education and support in what to expect physically and functionally after surgery (days / weeks / months)
- Education provided on evidence based lymphoedema risk minimisation guidelines, importance of scar massage, gradual upgrading of arm exercises and good skin care.
  - Baseline pre-operative Bioimpedance Spectroscopy (L-Dex) measurements taken. L Dex = 3.8 (Normal range is between -10 and +10).
Baseline shoulder ROM and function assessed. Full functional ROM shoulder / elbow. Shoulder flexion & abduction 178 degrees bilaterally.

Discuss psychosocial factors associated with this stressful time including support networks, talking with children & family members and allowing body to heal from surgery.

Liaison with multi-disciplinary team members as required.

OT Post-operative and ongoing rehabilitation management:

- Review and clarify education regarding lymphoedema risk
- Demonstrate and encourage completion of regular arm exercises to regain full ROM, good posture, upper body strengthening
- Demonstrate scar massage and skin care principles
- Complete post-op L-Dex = 7.6 (slight elevation due to post operative swelling)
- Complete shoulder ROM assessments, mobilization, soft tissue techniques
- Encourage return to functional activities (according to surgery guidelines)
- Psychological support in moving forward physically and functionally – often overwhelming reality sets in of treatment journey ahead
- Liaison & referral with team members as required

Early extracellular fluid changes during taxane chemotherapy treatment – Lymphoedema Risk Alert+++:

- L-Dex increases during Taxol treatment from 9.9 to 18.4 to 32.1 over 12 weeks with feelings of heaviness and fullness reported!!

OT Lymphoedema management included:

- Manual Lymphatic Drainage (massage) – self / partner / OT
- Compression therapy – initially ready to wear (still completing intensive treatment)
- Skin care
- Exercises – lymphatic, resistive training
- Elevation
- Diaphragmatic breathing
- ENCORE Program
- Breast and scar massage
- Psychosocial management – Empowering Mrs E to feel in CONTROL
- Coping with Survivorship phase of intensive treatment – energy conservation, “pacing”, developing a “new” normal, upgraded activity levels, realistic goal setting, psychological support & encouragement – Slow & steady wins the race!
- Effects of taxol slowly reduce 3 months post treatment however some mild circumferential differences (1-2cm difference around mid-forearm (L>R) and tissue changes observed
- Completed 4 week course of intensive Complex lymphoedema therapy (CLT) using 3M™ Coban™ 2 Lite Compression System twice weekly as Mrs E was unable to take more extended time off work. Good volume and L-Dex reduction. Mrs E was able to continue working in Coban 2 Layer Lite Compression System bandages until fitted with custom made flat knit compression sleeve with combined glove

18 months since diagnosis...

Mrs E maintains diligent self management with regular wearing of custom made compression garment, exercises, self manual lymphatic drainage. Mrs E’s arm feels soft. L-Dex =11.2 (within upper end of normal range) from pre-op baseline. Circumferential measurements (L>R by ~1cm – NB. (R) hand dominant)

Mrs E reports feeling in control of her arm and completes all normal activities. She continues to be reviewed by OT on a 3 monthly basis. Mrs E is still determined for her arm to not progress.

Reference

## 3M Coban 2 for Lymphoedema Bandaging Workshops - Australia

For more information, and to register a place, visit our website www.coban2.com.au

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<td>Location</td>
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In New Zealand, workshops are scheduled on demand. Please visit our website www.Coban2.co.nz to register your interest.

## 3M News

### Lymphoedema Early Detection Seminars Well Received

ImpediMed, supported by 3M, recently ran a series of seminars on monitoring for the early detection of breast cancer related lymphoedema. The seminars were run in support of the position paper released by the Australasian Lymphology Association (ALA) in October 2012 entitled: Monitoring for the early detection of breast cancer related lymphoedema. They were designed for lymphoedema practitioners who wished to gain practical skills and evidence based information to support women through the physical and psychological aspects of recovering from breast cancer treatment.

Invitations to the seminars were very well received and attendee numbers far exceeded expectations. A total of 124 participants joined the presenter Ms Louise Koelmeyer at the 5 venues in Auckland, Brisbane, Melbourne, Perth and Sydney. Feedback on the seminars was very positive, and as a result more are being considered for 2014.

### 2013 Lymphoedema Workshops

Thanks to everyone who made the time to come to one of our Coban 2 for Lymphoedema workshops. We were thrilled to host 257 of you across both countries.

Angela Meehan from NZ sales team modelling a custom design head wrap (note – not our standard technique!)

### 2014 Lymphoedema Workshops

The Australian Coban 2 for Lymphoedema workshop schedule has now been published (see the Diary Dates above). To find out more, and to register a place, visit our website www.Coban2.com.au.

Once again, we are running two levels of workshop, Basic and Advanced. The Advanced workshops are for people who have already attended a Basic Workshop. In 2014, the workshops will be modular, with the upper body techniques in the morning, and lower body in the afternoon. You can come to either or both of the sessions, depending on your clinical practice.

New Zealand workshops are scheduled on demand. Please visit our website, www.Coban2.co.nz, to register your interest.

### 3M Education Available On-Line

3M provides free and easy to use e-learning modules covering topics such as skin care, wound care and compression therapy. To access these courses, go to www.3m.webcentral.com.au