Therapies: Gloves off - Wearing gloves:

Peter Mackereth and Anne Fergus discuss the hot topic of wearing gloves while treating patients with cancer

We have been providing complementary therapies here at The Christie NHS Foundation Trust for more than 15 years. Over this time we have received numerous calls and emails from therapists about wearing gloves when providing complementary therapy treatments to patients with cancer, and particularly when these patients are receiving chemotherapy. In response to this, we thought it would be useful to look at some of the key issues surrounding the use of gloves and explain why at The Christie we believe the routine wearing of gloves is unnecessary.

The issue of chemotherapy 'contamination' First of all, let us consider what may be triggering this apparent 'need' for therapists to wear gloves. In her book, Medicine Hands, Gayle MacDonald (1) suggests there is a case for 'always' wearing gloves in clinical settings with patients, with concerns raised about antibiotic resistant bacteria, fungal infections and possible contamination of the patients' skin with bodily - fluids and drug metabolites.

In private practice, MacDonald doesn't judge it to be necessary, and for the sake of simplicity, suggests gloves when massaging people taking oral chemotherapy or for those who have received intravenous chemotherapy in the last 72 hours. In defending this stance, she suggests skin contamination with metabolites from drugs poses a risk, but this is not referenced.

And while it is true that contamination with active medication is possible, if accidentally spilled or sprayed onto the skin, this would require emergency skin decontamination of the patient, the environment and those in the vicinity, with packs available in all chemotherapy areas. Millions of people take medication every day, for a variety of conditions, such as heart disease, diabetes and asthma.

Like chemotherapy, these medicines will leave minute traces of metabolites on the skin, yet no one routinely recommends the wearing of gloves when treating patients who are taking noncancer medication. In addition, doctors, nurses and carers – who have physical social contact with patients receiving chemotherapy – do not routinely wear gloves, unless clinically indicated and appropriate (that is if providing an invasive procedure and/or the patient is infectious) (2).

So why the concern about chemotherapy metabolites in particular? How drugs are metabolised The main routes of drug excretion are through the biliary tract and kidneys, with metabolites passed out via urine and in the stools. Excretion of anticancer (chemotherapy) agents through the lungs, skin, sweat and tears is quantitatively negligible (3).

On an oncology massage forum, and based on a review of the literature, Hopkins (4) argues that massage therapists are not at a significantly increased risk of contamination from post-infusion transdermal excretion of chemotherapy metabolites. This is on the assumption that therapists wash their hands on completion of the treatment, which should be standard practice before and after all treatments.

Interestingly, and perhaps of greater concern to the therapist's health, is the 'third-hand' contamination of skin, hair and clothes from smoking tobacco and other substances, which can linger for hours, days and even months. High levels of tobacco contaminates have been found on children and in the environments of smokers, (5,6) yet we do not routinely wear protective clothing when in contact with smokers. Similarly, if a therapist smokes, his or her breath, hands and clothes will be contaminated with nicotine and hundreds of carcinogens, which can be easily passed to clients during massages.

At The Christie, we provide training for our therapists about safe practice when treating patients, which includes understanding the pharmokinetics of drugs. We would recommend that any therapist who is concerned about how different drugs are metabolised and expelled by the body, or potentially passed on from therapist to client and vice versa, speaks to the pharmacy staff at the hospital where they work.

A note about radiotherapy: at The Christie, we sometimes get queries from therapists worried about possible contamination from patients who have received radiotherapy, such as 'will I pick up the radiation from massaging them?' Radiation rapidly leaves the body – it is only when patients have radioactive implants that they pose a contamination risk to others. We do not massage radioactive patients, but have frequently been asked to provide hypnotherapy and relaxation techniques behind the protection of a lead screen. Once the implant has been removed and radiation levels have been checked and are within normal levels, we are invited in to provide touch therapies.

Gloves and psychological protection

If therapists reading this article are still anxious about being contaminated by chemotherapy drugs, it may be helpful to think of the massage oil as an aid to reducing or slowing down the desquamation process, thus reducing the spread of dead skin cells. However, if a therapist continues to be anxious, it may eventually compromise his or her own well-being: repeated exposure to cancer patients may trigger headaches, nausea and even itching – a nocebo (false negative) response linked to an expectation of harm rather than actual harm.

On a psychological level, the routine wearing of gloves could be interpreted as a layer of protection – a ritual care providers may be distressing for those who notice that they can only be touched through protective gloves.

Wearing gloves and false security.

Again, while not specific to therapists and massage, it is interesting to note that research has suggested that the inappropriate wearing of gloves can create a false sense of security. In one study (10), gloves were worn for 93.5 per cent of cases of contact when only indicated (clinically required) in 58 per cent of cases. Conversely, gloves were not worn when indicated in eight per cent of instances. Continued use of gloves when these should have been removed resulted in 64 per cent of all contacts being performed without adequate hand process that operates to diminish or contain anxiety in a stressful situation (7).

For example, a therapist who is frightened or fearful of chemotherapy or cancer might believe: 'I've got my gloves on, I'm safe to proceed and when I take them off and leave, I will also leave behind the cancer and chemotherapy.' But where is the patient in all this? Some patients (and their carers) might well be reassured by a therapist wearing gloves, particularly if they see the therapist treating other patients too, but is this really a sound basis for the decision to routinely wear gloves? Glove wearing – the patient's perspective.

Apart from the dental literature, where it is largely welcomed by patients, there are few research papers that look at what patients think leaves the body quickly after treatment

A note about radiotherapy

At The Christie, we sometimes get queries from therapists worried about possible contamination from patients who have received about the routine wearing of gloves, and none to date on therapists wearing gloves when providing massage.

In healthcare, one study showed that of the 29 patients interviewed, one reported feeling 'dirty' when nurses wore protective clothing, while nine reported feeling 'safe' with the wearing of gloves (8). Radiation radiotherapy, such as 'will I pick up the radiation from massaging them?' Radiation rapidly leaves the body – it is only when patients have radioactive implants that they pose a contamination risk to others.

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Radiation leaves the body quickly after treatment: In 2011, Tony Nicklinson was interviewed by a health journalist about the challenges of being paralysed and receiving 24-hour care. He raised an issue about the routine wearing of gloves, saying: 'Carers would pet my dog but they wouldn't touch me without gloves (9).

This highlights that what might be 'routine' to health and The Christie offers a range of courses aimed at complementary therapists, particularly those working with patients affected by cancer.

Hygiene.

The study also found that nursing assistants donned gloves more frequently than nurses. More recent studies have also reported that staff using gloves all the time take greater risks when it comes to infection control, with gloves staying on between patients and rates of compliance with hand hygiene significantly lower when gloves are worn (11,12).

When is it appropriate to wear gloves?

So, in light of all of the above, should gloves be routinely on or off when providing massage or other complementary therapies to someone living with cancer?

At The Christie, we believe single-use gloves should only be put on (and disposed of safely after treatment) if:

* The patient has cuts/abrasions, dermatitis or an infectious skin condition such as impetigo;
* If the patient is being barrier nursed;
* If the therapist has cuts, abrasions or dermatitis.

We feel that the blanket wearing of gloves for complementary therapy treatments sends out unhelpful message about social skin-to-skin contact.

Furthermore, therapists in all settings need to have a clear rationale for wearing gloves, which they need to be able to confidently explain to patients, carers and colleagues. Our hospital policy requires all therapists to thoroughly wash their hands before and after treatments; evidence suggests that this is the best defence against, for example, spore-forming Clostridium difficile (13).

Risk assessment should be undertaken to determine if personal protective equipment (PPE) such as gloves, apron and mask are required as part of standard precautions. (14).

In clinical practice, health professionals review the activity and level of risk. Bodily fluids and pathogens are our main concern, an issue which is covered by standard infection control precautions and isolation nursing. If in doubt, practitioners should seek advice from the hospital's lead nurse in infection control.

Further food for thought

Although relatively inexpensive, wearing gloves does add to costs; last year alone, our team of therapists treated more than 12,000 patients. Are there further issues regarding the type of glove, the wearer or the substance being handled? For example, could the integrity of the glove be impaired by essential oils, the duration of wearing and the particular activity, such as massaging a patient for more

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