



permission should be obtained from the doctor or senior nurse. Always check your department's policy as not everywhere permits the use of feet fearing it may cause damage to underlying tissues.

Other institutions, allow the back of the hand to be used but only as a last resort where there is no evidence of lymphoedema. This should be discussed with the patient and their valid consent obtained. Again, the hand must be free of cuts, sores, or skin lesions such as eczema or psoriasis.

When patients are hospitalised and where repeated blood rests are required, the medical staff or IV Team may insert an indwelling central line which gives easy access to staff who have been assessed as competent in intravenous therapy. Some researchers consider this preferable to using the feet [2].

What Does Research show?

A search of the medical journals provides conflicting views over whether it is acceptable to use the back of the hand when lymph nodes have been removed.

It depends of course on the level or number of lymph nodes excised. Radical excision obviously is more problematic in terms of lymphoedema. If only a few nodes are removed, there remains sufficient lymph vessels and nodes to filter and maintain drainage.

Many researchers only focus on lymphoedema and whether phlebotomy, cannulation and blood pressure recording can cause it. Writing in *Breast cancer research and treatment*, Jakes & Twelves, (2015) argue that there is no good evidence to show that venepuncture can precipitate lymphoedema and carries little, if any, risk of additional complications. But what about infection risks? On that point many are silent.

Without evidence-based research, it is difficult to know what is best-practice. Are we guarding against potential infections, preventing lymphoedema or both? Lymphoedema is known to make some people more susceptible to infections such as cellulitis.

Some researchers claim that all the usual precautions are based on historical and traditional views and totally unnecessary and the number of journal articles that support this, appears to be growing. [1.2.3]. But until evidence-based research is there to guide or change practice, many of us must, for the safety of the patient, continue to err on the side of caution and keep to the traditional teaching.

As your employing Trust of Practice bears ultimate responsibility for patient safety, it is important their policy is followed.

Roger Hoke

References

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2. Jakes, A. D., & Twelves, C. (2015). Breast cancer-related lymphoedema and venepuncture: a review and evidence-based recommendations. *Breast cancer research and treatment*, 154(3), 455–461. <https://doi.org/10.1007/s10549-015-3639-1>
3. Bryant, J. R., Hajjar, R. T., Lumley, C., & Chaiyasate, K. (2016). Clinical Inquiry-In women who have undergone breast cancer surgery, including lymph node removal, do blood pressure measurements taken in the ipsilateral arm increase the risk of lymphedema?. *The Journal of the Oklahoma State Medical Association*, 109(11), 529–531.

Training Dates

Paediatrics - 3rd September 2022

Venue - To be Advised

Train the Trainer - 29th - 30th September

Venue - Surrey.

For further information or to book please email Jacqui Hough at –

nap.training@btinternet.com

NAP

National Association of Phlebotomy



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Should you Register with the CQC?

Recently, a member running a private phlebotomy service was issued with a legal caution by the Care Quality Commission and could face court action for operating a phlebotomy service while unregistered with the CQC.

Naturally, this is causing a great deal of worry to the member and should raise concerns with other members who provide similar phlebotomy services and who, according to the CQC, may be committing a criminal offence. If convicted, the penalties are harsh as they can incur unlimited fines and/or a sentence of up to 12 months' imprisonment as such activity would be in breach of the Health & Social Care Act 2008.

The reason for this is based on their definition of diagnostic and screening procedures. The CQC have provided a definition in which they state—

“Diagnostic and screening procedures include a wide range of procedures related to diagnostics, screening and physiological measurement. The regulated activity includes all diagnostic procedures involving the use of any form of radiation (including X-ray), ultrasound or magnetic resonance imaging to examine the body. It also includes instances of taking a sample or biopsy because it captures procedures if they involve removal of tissue, cells or fluids from the body, for the purpose of diagnosing disease, disorder or injury or monitoring its cause or extent. Therefore, anyone who ‘removes’ tissue, cells or fluids from the body for diagnostic reasons must register.”

This is particularly worrying because if it affects this member, it may also affect others too. To clarify this issue and to support our member, Jacqui Hough has written to the CQC to ask for details which we can pass on to members to avoid others being caught up in threats of legal action. We will keep you updated as soon as we know more.

In the meantime, should anyone have similar concerns, a London based law firm, Rideout Law, may be able to advise. They state they are specialists in healthcare law and in matters relating to the CQC.

They can be contacted by email— info@rideout-law.com or telephone 0207 317 0340.

Mastectomy & Lymph Node Removal - choosing a puncture site

Recently there has been several conversations on the NAP Facebook pages about taking blood from patients who have had a mastectomy with excision of axillary lymph nodes. There seemed to be some variation on policy and how this surgery affects phlebotomy practice.

Although phlebotomists don't have access to the patient's clinical notes and surgical history, patients almost always say whether an arm can be used. It's

important that this is respected, and patients are not coerced into going against their surgeon's advice—even if that advice was given many years ago.

What are lymph nodes — what do they do?

Lymph nodes are small bean-shaped organs and are widely distributed all around the body with clusters in the axilla and groin areas. Each node is interconnected by lymph vessels. We also have lymph nodes in our necks which can swell and be palpated during sore throats and upper respiratory tract infections. Collectively they form an essential part of the immune system.

Blood capillaries allow fluid to pass out of the thin single-cell capillary walls to provide nutrients to tissue cells and remove metabolic waste. This fluid needs to return to the blood stream so that waste products can be eliminated by the kidneys. Failure to do so, results in the arm swelling which is described as lymphoedema.

The lymphatic system fulfils this need by collecting the watery fluid called lymph and draining it back into the venous circulation where it circulates in the plasma.

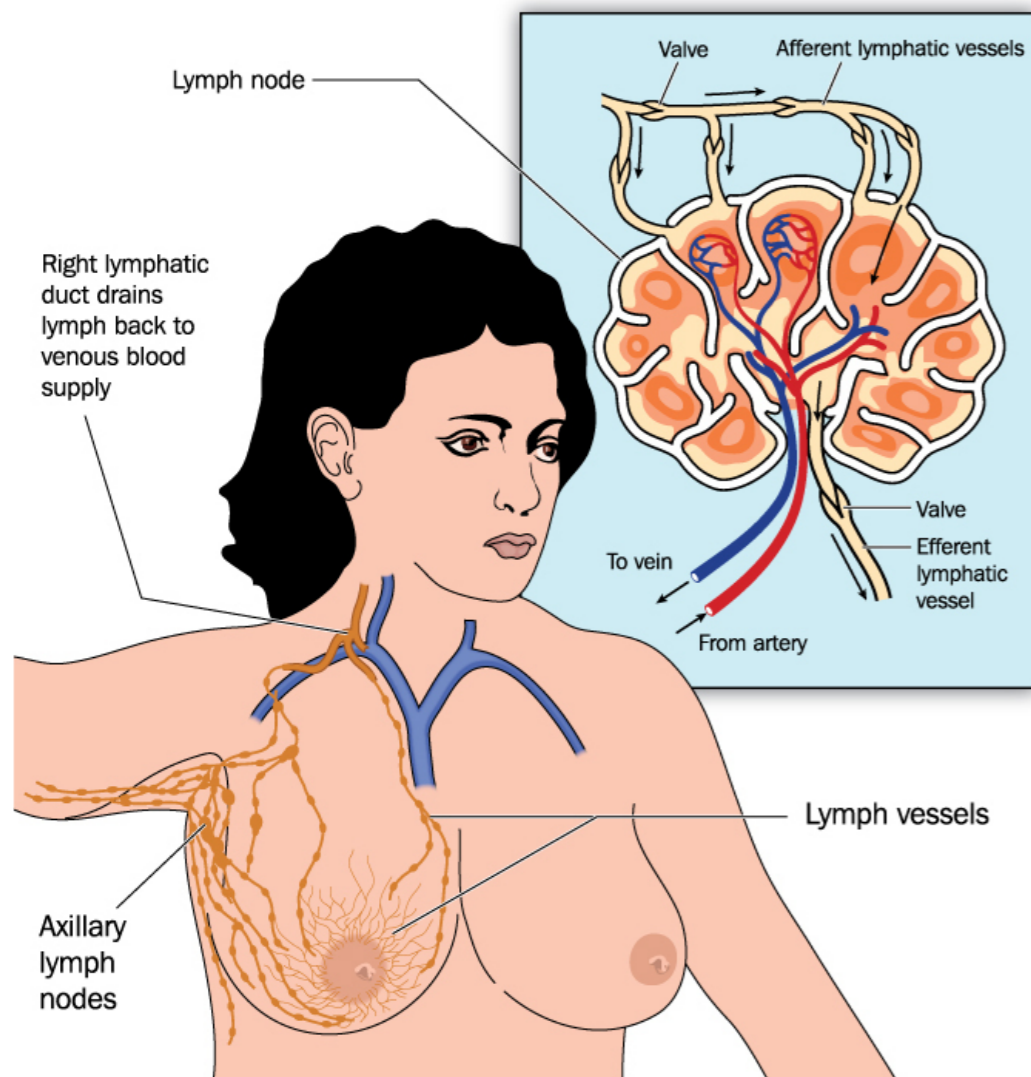


Figure 1. Diagrammatic illustration of the axillary lymph nodes and cross section of a typical lymph node. Copyright ©Shutterstock

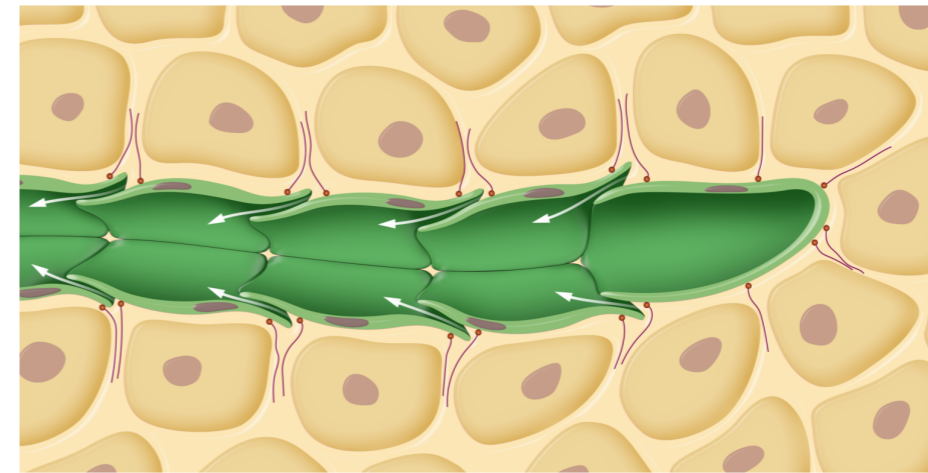


Figure 2. Diagram showing a lymphatic duct collecting fluid from tissue cells.

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If this collection system were unprotected, bacteria travelling in lymph from a localised infection in an arm or leg, could easily enter the circulation where it could potentially cause a severe infection.

Fortunately, to prevent this, lymph nodes contain an abundance of white blood cells such as macrophages and lymphocytes to filter the lymph and destroy invading bacteria and viruses. Where an infection occurs in a limb, the lymphatic system attempts to compartmentalise or isolate the limb, preventing pathogens reaching the major organs and tissues.

Patients who have had a mastectomy and excision of lymph nodes or radiotherapy, are usually advised to avoid minor injuries such as cuts and scratches and to wear gloves when doing activities such as gardening or dealing with pets. Traditionally, they are also advised to avoid having blood tests, cannulas, blood pressure measurement or injections in that arm.

From comments on Facebook some suggested that blood could be taken from arms if lymph nodes had been removed ten or more years previously but from an infection point of view, it is for life as lymph nodes do not regenerate in the same way amputated limbs will not regrow. Once removed, they are gone for ever. However, some lymph vessels may enlarge to compensate for the loss of others.

Some contributors suggested that although the ante-cubital fossa shouldn't be used, taking blood

from the back of the hand was permissible. If we look at infection risks from a traditional point of view, then infection anywhere in the arm must still drain into the circulation, producing the same infection risks hence, advice given to patients to protect the arm from cuts, grazes, needles, and injections and to wear gloves when gardening or engaging in similar activities.

Further comments stated blood specimens should not be taken from arms where lymph nodes have been removed because the tourniquet could cause lymphoedema. As tourniquets should only be applied for a maximum of one minute in any event, some researchers currently dispute this as contributing to or causing lymphoedema. However, where lymphoedema is present, applying a tourniquet to the arm certainly isn't helping.

Bilateral mastectomy and lymph node removal

Bilateral mastectomy with lymph node excision causes further difficulties. Where then is safe? Some departments have tackled this by allowing senior phlebotomy staff to take blood from the feet with a winged collection set.

It is important that feet are healthy and checked to ensure there are no signs of eczema, psoriasis, ulcers or other broken skin areas and the patient is not a risk for deep vein thrombosis or has a poor circulatory disorder. As examination and patient assessment is normally outside the phlebotomist's role,