Examining the evidence base for venepuncture in patients with previous mastectomies

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Introduction

• Variances in clinical practice stimulated discussion including
  – Staff fear
  – Patient experience
• What does the evidence say?
• What did we do next?
• Translating the knowledge into action
How the Practice Development Team influence the patient’s journey

Utilising technology to enhance learning

Clinical Skills
- Right people
- Right skills
- Right time
= quality care

Promoting patient independence & safety with moving & handling

Evidence based practice underpinning all care and training

Using clinical data to inform quality care

Effective communication enabling patients to feel empowered & involved
The PD Team at STH

• Ethos: ‘Having the right staff, with the right skills, in the right pace, at the right time is essential for the delivery of the right care’

• Finding, using and applying evidence part of that ethos

• Who we are
  – Clinicians
  – Linking closely with clinical practice
  – Professional credibility
Literature Review

• NHS Evidence: (Variety of databases)

• Search terms
  – Mastectomy
  – Mastectomy radical
  – Blood specimen collection
  – Lymphoedema
  – Primary prevention

• Boolean Logic – and / or

• Dates – up to October 2016 / English
The Literature

- Secondary / hand searching
- Classic texts (and not so classic texts!)
- 27 pieces of literature
  - Including 9 anecdotal pieces that were either unreferenced, single case studies, letters to the editor or very short expert pieces - these were excluded
- Methodically reviewed
What the evidence said

• Varying Risks of Lymphoedema (LO):

<table>
<thead>
<tr>
<th>Post Mastectomy</th>
<th>Other / additional interventions</th>
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<tbody>
<tr>
<td>Between 6-83%</td>
<td>Between 6-22% in sentinel node biopsy</td>
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<tr>
<td>42% of patients in their study – 80% in the first two years</td>
<td>Between 30- 50% of lymph node dissection</td>
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<td>Up to 28% of all women who have had breast cancer treatment</td>
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<td>24% chance</td>
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<tr>
<td>Between 7-59% post mastectomy</td>
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<td>20% of patients in the study developed LO</td>
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<td>25% all breast cancer patients</td>
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But........

- Lymphoedema is a risk in other types of surgery too
  - gynaecological, head & neck cancers
  - urological cancers etc.
- Women with mild LO were three times more likely to develop more severe LO later
- Lots of other factors can cause LO not just venepuncture or blood pressure recordings
  - Air travel, insect stings, sports injuries, sunburn, carrying heavy loads, tissue strain
Themes from the evidence

• Levels of surgery associated with mastectomy
• Actual and perceived risks of triggering lymphoedema
• Other causes of lymphoedema
• The expert patient’s role
• Timings of the mastectomy surgery
• Patient assessment and identification
• Alternative sites / procedures for venepuncture and permissions required for these
Guidance from the evidence

• Use a CVAD for venous access – if not appropriate, choose the arm that was operated on first or if both operated on at the same time, choose the side that did not receive radiotherapy. If not appropriate, choose the non dominant arm.

• Use the feet if possible, consider a CVAD device for prolonged access use, or use arm which had its axillary nodes operated on first. Need to match the regularity of access to the approach used.

• Consider using the feet or a CVAD.

• Use the feet or legs for venous access.
Conclusion

• The attitude of the staff dealing with that patient can affect patient experience
• Getting permission from physicians / medical staff is a key issue in much of the evidence – but that assumes that medical staff know more about this issue than anyone else
• The evidence for or against using the affected arm for venepuncture is flawed / weak at best, but organisational recommendations imply avoiding the affected arm
• An assessment is needed about how much access is going to be needed over what time for placement of CVAD’s etc.
What happened next?

Expert Working Group:

- Angela Bennett, Irene Mabbott & Dawn Thompson
  - Practice Development Team
- Jane Beveridge
  - Deputy Nurse Director: Cancer Services
- Sally Conlan
  - Matron Hospital Out of Hours
- Aysha Goodyear & Jennifer Yates
  - Lymphoedema Specialist Nurses
- Sirwan Hadad
  - Consultant Breast Surgeon
- Alison Holmes
  - Breast Care Specialist Nurse
- Debbie Shone
  - Patient & Healthcare Governance
Venepuncture and Peripheral Venous Cannulation Decision Tool

Is the procedure absolutely necessary? If not, then stop.

- **Yes**
  - Bilateral mastectomy without lymphoedema or previous ANC with no risk factors (PTO) the patient may consent to upper limb use after being warned of potential risks. Does the patient consent?
    - **No**
    - Use upper limb as per current guidance. Consider the skill level of the practitioner. If having difficulty, refer task to the most proficient practitioner on duty.
    - **Yes**
      - E.g. Post bilateral mastectomy and axillary lymph node clearance (ANC), lymphoedema (PTO for further guidance) fractured arms or when multiple unsuccessful attempts have been made on the upper limbs.

- **No**
  - Implement alternative access (e.g., Central Venous Access Device - CVAD)
  - Proceed to use the feet as a last resort only
  - Reassess and remove / relocate cannula as soon as possible and within 24 hours

**Evidence Based Decision Tool**
Supporting Open Learning Package
The Future...

- More directorates now adopting the tool and using the training
  - Specifically the Out of Hours Services and Hospital Front Door
- More than lymphoedema – wider groups of patients that require venepuncture from other limbs
  - The training package and tool applicable is to them
- More evidence being published on this subject
  - Continuous review
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