Venous Ulcer Services in the United Kingdom

W.B. Campbell,* H. Thomson,1 J.B. MacIntyre,1 C. Coward1 and J.A. Michaels2

1Department of Surgery, Royal Devon and Exeter Hospital, Peninsula Medical School, Exeter EX2 5DW, and
2Sheffield Vascular Institute and University of Sheffield, Northern General Hospital, Sheffield S5 7AU, UK

Objectives. To obtain comprehensive information about venous ulcer services throughout the United Kingdom (UK).

Design. Questionnaire based survey.

Materials. Questionnaire.

Methods. Letters about venous ulcer services were sent to consultant vascular surgeons in all areas of the UK (total 181). Questionnaires were then directed to the appropriate clinician in each area.

Results. Responses were received from 177 (98%) areas. Fifteen (8%) had no dedicated service. Completed questionnaires were returned for 112 (63%) areas. Fifty-six (54%) services were managed by acute hospitals, 29 (28%) by primary care (community) and 19 (18%) jointly. Doctors supervised services in 65 (64%) (vascular surgeons 49, dermatologists 12, both 4) and nurses in 31 (33%). New referrals per week were 1–50 based on audit (33%) or estimates (67%). Sixty-three (58%) services had no database. Written guidelines existed for 76% services (90% nurse-supervised and 64% doctor-supervised services—p < 0.02).

Conclusions. Dedicated venous ulcer services have been shown to improve healing rates and quality of life. Although now present in most areas of the UK, their organisation varies considerably and many are not based in the community, near patients homes. This survey provides a benchmark for comparison with venous ulcer services in other countries.

Keywords: Leg ulcers; Venous ulcers; Varicose ulcers.

Introduction

Venous leg ulcers are common: they cause great distress to patients and a major financial burden for health services in the United Kingdom (UK) and other countries.1–9 Compression bandaging is effective10 and has become the mainstay of treatment, but its use requires specific training and skill, and prior measurement of Doppler ankle systolic pressure index to check for arterial disease.3,6,7,11 Patients often need to be referred to vascular surgeons for arterial disease or varicose veins,11,12 or to dermatologists for advice on diagnosis and treatment of their ulcers.13 A number of studies have shown that dedicated venous ulcer services increase healing rates and improve the quality of patients’ lives.3,4,6,7,9,14,15

These services have been established in many parts of the UK and some exist in other countries,8 but until now there has been no really comprehensive information about them. One attempt to audit leg ulcer services in the UK was based on individual surgeons, rather than geographical areas and achieved only a 54% response rate.16 This study aimed to provide a comprehensive picture of leg ulcer services throughout the UK.

By way of background, it is important to understand how services are delivered and managed in the UK National Health Service. Care in the community (in family doctors’ surgeries, patients’ homes and many small community hospitals) is managed and funded separately from care in main acute hospitals (where specialists including vascular surgeons and dermatologists are based). Primary Care Trusts (PCT) are the organisations responsible for care in the community and they purchase services from Acute Care (hospital) Trusts (ACT). Services which are delivered both in acute hospitals and in the community, therefore, need special arrangements and negotiations.

Materials and Methods

Letters were sent to consultant vascular surgeons in
every acute hospital or group of hospitals throughout the UK (total 181) asking about the existence and supervision of venous ulcer services in their area. Detailed questionnaires were then directed to the appropriate clinician in each area. The questions posed are shown in the Appendix A.

Comparisons between the practices of different groups of clinicians was done by the Chi squared test with Yates’ correction for small numbers.

**Results**

Responses to letters and/or questionnaires were received from 177 (98%) areas. Fifteen (8%) had no dedicated venous ulcer service. Completed questionnaires were returned describing services in 112 (63%) areas, but no details were received about 50 (28%) areas in which services were said to exist.

Fifty-six (54%) venous ulcer services were managed by ACTs, 29 (28%) by PCTs and 19 (18%) jointly. Table 1 shows where clinics were based. Clinicians in overall charge of services were vascular surgeons (49), dermatologists (12) or both (4) (i.e. doctor-led in 64%); nurses (31) (33%); or others (4).

Training for nurses in arterial Doppler pressure measurements and in compression bandaging was done ‘in house’ in 52 and 54%, respectively, on courses in 22 and 18%, respectively, or both in 26%.

New referrals per week were reported as 1–50 (median 5) and annual attendances as 10–4600 (median 270) based on audit (33%) or estimates (67%). Forty-five (42%) services had databases. Written guidelines existed for 76% services. These were significantly more common in services supervised by nurses (90%) than in services supervised by doctors (64%)—\( p<0.02 \). Eighty-five percent had been developed locally—51% based on existing national guidelines, most commonly those of the Royal College of Nursing (34)\(^{17} \) or Scottish Intercollegiate Guidelines Network (13)\(^{18} \).

**Discussion**

There is good evidence that dedicated venous leg ulcer services improve ulcer healing rates,\(^{3,6,7,15} \) enhance the quality of patients’ lives,\(^{4,9} \) and provide a cost effective means of treating venous ulcers.\(^{7,15} \) There is a widespread belief that clinics are best based in the community, close to patients’ homes, particularly because many are elderly and immobile.

As described above, patient care in the UK National Health Service is managed and funded in acute hospitals, where medical specialists are based, separately from the community (although, PCTs have overall responsibility for purchasing care for the patients in their area). Further complexities exist, because a number of PCTs may purchase services from a single acute hospital; and a number of acute hospitals may collaborate in providing vascular services (distribution of letters and questionnaires took account of the latter, as far as possible). All this means that establishing services that will operate across the boundaries between acute and community care can be difficult. This may account for the fact that many venous ulcer services are based in acute hospitals—because they were established by vascular surgeons and/or dermatologists using the facilities they had available and without complex external funding negotiations. It is possible that our targeting of vascular surgeons might have biased responses towards hospital based services, but this seems unlikely, because the initial letter asked who supervised any service, and responses were received from 98% areas.

The role of nurses is fundamental. They need not only to be skilled in compression bandaging, but also in assessment including routine measurement of Doppler systolic pressure indices. We were interested to discover how they were trained in these techniques.\(^{19,20} \) The responses showed that nearly half attended courses, while about one in five received ‘in house’ training only (the remainder had both). The survey has shown that nurses manage services in one third of the areas reported and these nurse-led services are more commonly directed by guidelines than those supervised by doctors.

Lack of data collection and audit appear to be a problem: Only 42% of the services had a database. Some of the highest figures for patient numbers and attendances were deviant and probably represent over-estimates. Good audit ought to be a fundamental aim when setting up new venous ulcer services, for clinical, research, management and financial reasons.\(^{13} \)

We now have sufficient knowledge to give patients with venous ulcers a package of care, which offers the

<table>
<thead>
<tr>
<th>Table 1. This table shows where venous ulcer clinics were based (total 111 responses)</th>
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</thead>
<tbody>
<tr>
<td>Clinic base</td>
</tr>
<tr>
<td>Acute hospital only</td>
</tr>
<tr>
<td>Acute hospital and GP surgery</td>
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<td>GP surgery only</td>
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<tr>
<td>Acute hospital and community hospital</td>
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<tr>
<td>Community hospital only</td>
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<tr>
<td>Community hospital and GP surgery</td>
</tr>
<tr>
<td>All the above</td>
</tr>
<tr>
<td>Acute hospital and other community setting</td>
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<tr>
<td>Other</td>
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GP refers to General Practitioner (Primary Care physician).
best chance of getting them healed and keeping them healed. This includes good assessment; selective early referral to vascular specialists, dermatologists and others; skilful compression bandaging; and long-term compression hosiery. All this is best done in the context of dedicated venous ulcer (or leg ulcer) services, which offer patients treatment near their homes. This survey has shown that services exist throughout most of the UK, but their organisation varies considerably. It would be interesting to have information from other countries about their services for venous ulcers. Venous ulcers are an international problem with major financial and health care consequences.

Acknowledgements

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Appendix A. Questionnaire About Venous Ulcer Services

1. Is there any specially organised service for treating venous ulcers in your area? Yes/No
   If Yes, please go to question 2 and complete the rest of this questionnaire.
   If No, please could you let us know on a separate sheet how venous ulcers are dealt with in your area. There is no need to complete any other questions. Thank you.
2. Is the venous ulcer service a single, integrated service, or is there more than one different service in operation?
   If more than one service: How many? Who supervises each? (Please give contact details).
   We would welcome as much information as you are prepared to give about the different services; how and where they operate; and the degree of coordination/collaboration between them.
   For the remainder of the questions, please give details of the service with which you are personally involved.
3. Is your venous ulcer service based in... (mark one box only)
   Do you have ‘out-reach’ services in... (mark as many boxes as apply).
   Acute hospital (which department?).
   Community hospitals.
   General practice surgeries.
   Other (please state).
4. What population (number of people) does your venous ulcer service serve?
   Is it based on Acute Trust catchment areas, Primary Care Trusts, other?
5. Is your service managed by an Acute Trust or Primary Care Trusts? Which one?
6. Staffing
   Who is the clinician in overall charge of your venous ulcer service (probably you)? (Name and specialty).
   What other medical and nursing staff are involved?
   (Their discipline, grade and how many full time equivalents?).
7. Do you use written guidelines for management of venous leg ulcers? Yes/No
   If Yes: Please send a copy of your guidelines. Were these guidelines developed locally? Yes/No.
   If Yes: Were they based on existing guidelines from elsewhere? Which one?
8. How are patients referred to the service? (Mark as many boxes as apply)
   From practice/community nurses.
   From general practitioners.
   From hospital consultants.
   Other (who?).
9. How are patients selected for referral to vascular surgeons?
10. Measurement of ankle Doppler systolic pressure indices
    In primary care: Who undertakes measurement of Doppler ankle pressures? How are they trained?
11. Multi-layer compression bandaging
    In primary care: Who undertakes multi-layer compression bandaging?
    How are they trained?
12. Question about use of antimicrobial agents (not relevant to this study).
13. Audit: Have you a database of the patients treated by your service? Yes/No
    How many patients are seen in your service as new referrals each week?
    As follow-up attendances each week?
    In total each year (patients, not attendances)? Are these figures: An estimate? Based on audit?
References

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