

ORIGINAL RESEARCH

Research priorities for venous conditions: results of the UK Vascular James Lind Alliance Priority Setting Process

Long J,^{1,2} Atkin L,^{3,4} Gronlund T,⁵ Lane T,⁶ Nandhra S,^{7,8} Wilton E,⁹ Carradice D,^{1,2} on behalf of the Vascular Society of Great Britain and Ireland Venous Special Interest Group

1. Hull University Teaching Hospitals NHS Trust, Hull, UK
2. Academic Vascular Surgical Unit, Hull York Medical School, Hull, UK
3. Division of Podiatry and Clinical Sciences, University of Huddersfield, UK
4. Vascular Nurse Consultant, Pinderfields Hospital, Wakefield, UK
5. James Lind Alliance, UK
6. Imperial College Healthcare NHS Trust, London, UK
7. Population Health Sciences Institute, Newcastle University, Newcastle upon Tyne, UK
8. Northern Vascular Centre, Freeman Hospital, Newcastle upon Tyne, UK
9. Oxford University Hospitals NHS Foundation Trust, Oxford, UK

Corresponding author:

Judith Long
Vascular Office, 2nd Floor,
Allam Diabetes Centre,
Hull Royal Infirmary,
Anlaby Road, Hull, HU3 2JZ, UK
Email: Judith.long3@nhs.net

Received: 19th July 2022

Accepted: 4th August 2022

Online: 30th September 2022

Plain English Summary

Why we undertook the work: More research is needed to help improve care for people with venous conditions, but funding is limited. We ran a Priority Setting Process (PSP) to identify the most important research priorities to improve patients' lives, and generated a 'top 10' list. This list will help focus research and funding on areas that matter most to patients, carers and healthcare teams.

What we did: Patients and healthcare professionals participated in rounds of survey and were asked to suggest priorities for vascular research. Responses were summarised and organised into nine overall vascular condition areas. Summary priorities were then sent out in a second survey for scoring according to order of importance. The lists of patient and professional priorities were then combined into a shared list for discussion at a final workshop meeting where a mix of patients and healthcare professionals agreed the 'top 10' research priorities for venous condition research in the UK.

What we found: Research priorities about vascular conditions were submitted by 481 healthcare professionals and 373 patients or carers. A final list of 14 priorities specifically about venous conditions were discussed at a final workshop involving patients, carers and clinicians, and put into a ranked 'top 10' list according to perceived and shared importance. Research priorities relate to: access to venous specialist services, prevention, wound healing, pain management, education and compliance.

What this means: Research priorities have been identified by patients and health professionals with lived experience of venous conditions. Researchers and funders are encouraged to focus on addressing these priorities and supporting studies in these areas.

Abstract

Introduction: Venous disease comprises a range of conditions of varying severity, which can result in pain and discomfort and a reduced quality of life. The annual costs for the treatment and management of venous disease in the UK is in the order of billions of pounds. It is vitally important to direct finite National Health Service (NHS) funding into areas that will maximise health outcomes and reduce the burden on the NHS. To address the issue of where best to target resources and research, the Vascular Society of Great Britain and Ireland (VSGBI) in association with the James Lind Alliance (JLA) undertook a national Priority Setting Process (PSP) for vascular conditions. This paper presents the results of this process, with a focus on the topic of 'venous conditions'.

Methods: A modified JLA Priority Setting Partnership was developed to gather clinician, patient and carer research priorities for vascular conditions. Consensus workshops were held to discuss clinician and patient priorities and agree a list of joint research priorities. Consensus was achieved using the nominal group technique and a ranked 'top 10' list of research priorities for venous conditions was established.

Results: In the first phase (clinician-led survey), 481 clinicians submitted 1,231 research questions related to vascular conditions in general. Of these, 130 venous-specific research priorities were reduced to 13 overarching summary priorities recirculated for interim scoring. In the second phase (patient and carer-led survey), 373 patients and carers submitted 582 research priorities. Of these, 101 venous-specific priorities were reduced to 22 overarching summary priorities and recirculated for interim scoring. In the third phase (consensus workshop), clinician and patient priorities were amalgamated into 14 priorities for discussion. The final 'top 10' list of venous condition research priorities relate to: access to specialist

venous services, prevention, wound healing, pain management, education and compliance.

Conclusions: The 'top 10' venous-related priorities demonstrate the research areas considered to be most important from the perspective of patients, carers and healthcare professionals. Researchers can now focus their efforts on developing research questions and studies to address these priorities and funders should increase their investment to support new studies in these areas of greatest importance.

Key words: vascular, venous, research, priorities

Background

Venous disease encompasses a range of conditions that vary in severity and, if left unmanaged, can lead to serious conditions such as leg ulcers. This presents a huge economic burden to the NHS, estimated to be between £1bn and £3bn per year for ulcers alone.¹⁻³ Venous disease can negatively impact on quality of life with issues such as pain, restricted mobility and reduced psychosocial functioning.⁴⁻⁶

Despite a wide range of treatment options and guidelines, questions still remain unanswered about the efficacy and cost effectiveness of different interventions, with uncertainty over a selection of treatments.⁷⁻¹¹ In a recent report published by the All-Party Parliamentary Group for Vascular and Venous Disease, the data show that more than half of clinical commissioning policies (64%) do not provide access to venous treatment in line with NICE guidance, and pathways for venous conditions do not exist in a significant number of NHS Trusts.¹²⁻¹⁵

In order to ensure optimal management of venous conditions, more research is needed; however, funding is limited and highly competitive. Funding bodies need to ensure their limited investment is directed to areas with the greatest potential for improving clinical services and health outcomes, whilst avoiding research waste.¹⁶ Priority Setting Processes (PSPs) are an increasingly popular method to address this issue; they systematically identify and prioritise research gaps and are seen as an effective way of highlighting important topics for funding consideration.¹⁷

The Vascular Society of Great Britain and Ireland (VSGBI) initiated a national PSP for vascular conditions in association with the James Lind Alliance (JLA) who specialise in facilitating patient involvement in research.¹⁸ Prior to this there was no agreement for research priorities within the vascular specialist community. The aim of the Vascular PSP was to survey vascular health professionals, patients

and carers to identify and prioritise the most important research priorities. This paper presents an overview of the vascular condition PSP, focusing on the recommendations for venous-related priorities and implications for future research in this area.

Methods

A detailed description of the process has been provided previously.¹⁹⁻²⁵ A summary of the process is outlined below and presented in Figure 1.

Figure 1 Flowchart of the Vascular Priority Setting Process (PSP).

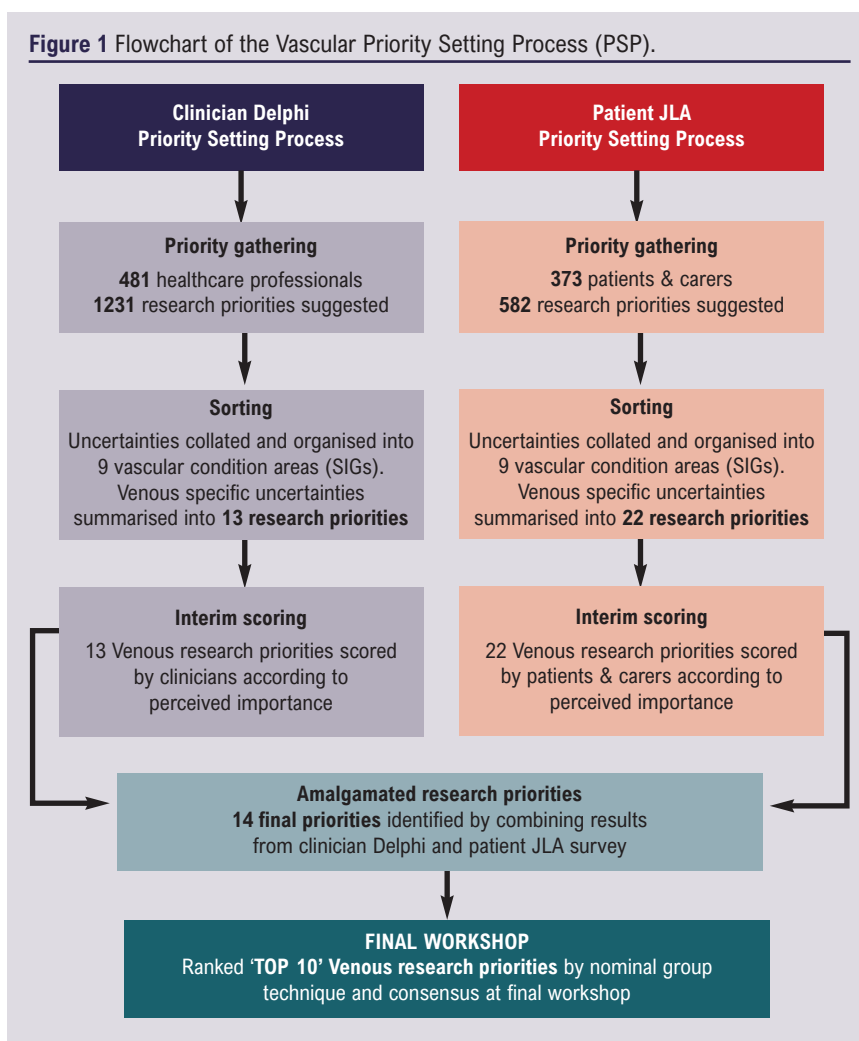


Table 1 List of nine Special Interest Groups (SIGs), categorised by overarching vascular condition.

Vascular PSP Special Interest Groups (SIGs)		
Access	Amputation	Aortic
Carotid	Diabetic foot	Peripheral arterial disease
Service organisation*	Venous	Wounds

*This category was established to support generic priorities that apply across all SIGs (e.g., questions about access, organisation and service delivery).

The VSGBI undertook a research PSP in association with the JLA to identify research priorities for vascular conditions. The work was overseen by a steering committee involving representation from all the leading UK Vascular Societies and patients. Nine overarching vascular condition Special Interest Groups (SIGs) were established to help support the process and ensure that each area retained their important research priorities (Table 1).

Initially, due to resource limitations, a clinician-led Delphi survey was conducted to produce a list of research priorities to reflect the opinions of vascular healthcare professionals. This was followed by a separate patient and carer focused JLA survey to identify important research priorities from the perspective of vascular patients and carers. The two processes were then brought together at final workshops held separately for each SIG, where patients, carers and clinicians worked together to agree a shared list of 'top 10' research priorities.

Scope of the Venous SIG

The remit of the Venous SIG is to support research into the care of patients with venous conditions. The Venous SIG aims to develop the list of top 10 priorities into funded venous research studies that address these important areas.

Clinician-led research Priority Setting Process

Healthcare professionals were surveyed using a modified Delphi approach that consisted of two rounds:

Survey Round One: In the first round, an open-ended survey invited participants to submit their priorities for vascular research. An electronic link to the survey was emailed via the following membership bodies: The Vascular Society of Great Britain, The Society of Vascular Nurses, and The Society of Vascular Technicians of Great Britain and Ireland and the Rouleaux Club. Letters including the survey link were sent to each vascular unit registered on the National Vascular Registry (NVR) and the survey was also promoted via twitter. Responses were collated and categorised into pathological topics and research themes by a core subgroup of the steering committee. Similar responses were amalgamated and summarised into an overarching priority. Responses considered out of scope (eg, too broad or logically

Table 2 Venous research priorities from the clinician survey and prioritisation process, with the mean ranking score.

Research priority	Mean Score
What is the optimal treatment strategy for proximal deep venous disease (thrombolysis, stenting, compression, surgery, anti-coagulation)?	7.75
Can we develop a leg ulcer care pathway to ensure optimal management?	7.48
Does early intervention in superficial venous incompetence prevent disease progression to ulceration?	7.40
What is the optimal compression strategy (bandages, stockings, boots) for patients with venous disease and how do we improve compliance?	6.77
What is the optimal VTE thromboprophylaxis strategy in varicose vein intervention?	6.76
What is the optimal commissioning policy for superficial venous incompetence?	6.68
What is the optimal strategy for the diagnosis and management of calf DVT?	6.62
How can we improve VTE prevention?	6.60
Are non-thermal as effective as thermal ablative techniques in the management of varicose veins?	6.52
How can the long-term outcomes be improved following treatment for varicose veins?	6.50
How prevalent is pelvic vein incompetence and is treatment effective?	6.31
What is the optimal compression regime following endovenous ablation?	6.24
What are the basic mechanisms underlying venous incompetence?	6.06

unclear) were removed and remaining priorities checked for current evidence.

Survey Round Two: The refined list of priorities was redistributed in a second survey for scoring. Participants were asked to rate the importance of the summary priorities on scale of 1–10 (1 being the least important, 10 being the most important). This process was completed in 2018²¹ and the results of clinicians' venous-related priorities are summarised in Table 2.

Patient/carer-led research Priority Setting Process

Vascular patients and carers were surveyed using a modified JLA approach, with guidance from a JLA advisor and used similar methodology as the clinician-led PSP.

Survey Round One: In the first round, a survey invited patients and carers to submit their own research priorities. The survey was provided in paper and electronic format and advertised to UK-based societies involved with care of vascular patients. Participant packs were sent out to vascular units and included paper surveys with freepost return address and promotional materials such as posters and postcards that could be left in waiting areas. The survey was also advertised via social media (twitter), websites and

newsletters. Responses were categorised and delegated to each SIG for further review. Similar responses were amalgamated and summarised into an overarching priority. Responses considered out of scope (eg, too broad or logically unclear) were removed and remaining responses checked for current evidence.

Survey Round Two: The refined list of priorities was redistributed in a second survey for scoring. Participants were invited to rate the importance of research priority using a 5-point Likert scale (scores ranging from 1 = “not at all important” to 5 = “extremely important”). This process was completed in 2020 and the results of patient and carer venous condition priorities are summarised in Table 3.

Special Interest Group Prioritisation Workshops

For each SIG, the results of the clinician and patient/carer-led interim prioritisation processes were combined. Similar or duplicated priorities were amalgamated and any technically worded language from the clinician priorities was revised with patient input. Care was taken to ensure that the original substance of the priority remained. This process generated a refined list of joint priorities for discussion at individual SIG workshops.

The final prioritisation workshop for venous conditions was conducted virtually using the Zoom platform to accommodate COVID-19 restrictions. All attendees (including healthcare professionals, patients and carers) were recruited via direct contact or were approached if they expressed an interest during the initial prioritisation process. Participants were sent details of the workshop, an agenda and a list of the research priorities to be discussed in advance. Prior to the workshop, participants were asked to consider the combined list of clinician and patient research priorities shown in Table 4, and to rank them in order of importance from 1 (most important) to 14 (least important).

The workshop was led by two experienced JLA advisers, a JLA coordinator and a technical lead who were skilled in the JLA PSP process and leading such workshops. Members of the venous SIG attended as observers and to provide support to attendees if required (they would join a separate breakout room). SIG members were not directly involved in the priority setting and had no influence over the final agreed list of priorities. Following welcome and introductions, participants were split into two breakout rooms which consisted of a mix of patients and healthcare professionals. Small group discussions were facilitated by an advisor and followed a nominal group technique to reach a consensus for an ordered list of ‘top 10’ priorities.

First round of discussion: Participants shared their top three and lowest three priorities with a brief explanation for why. This was followed by an open discussion about similarities and differences and any priorities that were not initially mentioned.

Second round of discussion: The JLA facilitator presented on screen a potential order of questions based on initial feedback and

Table 3 Venous research priorities from the patient/carer survey and prioritisation process, with the mean ranking score.

Research priority	Mean Score
How can we improve awareness and education of venous disease for healthcare professionals?	4.22
How do we ensure that patients with venous disease receive the specialist assessment and treatment they need?	4.18
How can we make venous leg ulcers heal more quickly?	4.17
How do we improve the early detection of deep vein thrombosis?	4.14
Can we improve the treatment of patients who have had a deep vein thrombosis and go on to develop pain, swelling and skin damage?	4.14
How can we prevent patients developing pain, swelling and skin damage after a deep vein thrombosis?	4.10
How can we improve pain control in venous leg ulcers?	4.05
How do we prevent varicose veins from damaging the skin and from causing leg ulcers?	4.00
What is the most effective treatment for varicose veins?	3.96
Is there a long-term benefit to compression following varicose vein treatment?	3.95
What is the impact of compression treatment on inflammation?	3.90
Can we predict which patients with varicose veins or previous blood clots will develop skin damage?	3.87
Are varicose veins associated with an increased risk of other medical conditions such as stroke, heart disease, chronic fatigue, memory loss?	3.86
How effective is deep venous stenting in the prevention or treatment of pain, swelling or skin damage?	3.83
How can we improve pain in venous malformations where compression is not possible?	3.75
How can we prevent varicose veins from happening or them coming back after treatment?	3.74
How can we improve awareness and education for the general population and patients with venous disease?	3.73
Do hormone levels have an association with venous malformations?	3.53
What causes varicose veins?	3.52
Will a greater understanding of the micro-organisms living in venous leg ulcers result in less infection and/or greater wound healing?	3.50
Can compression be made more comfortable?	3.48
Does haemodialysis have an impact on venous disease?	3.29

discussion. Participants had an opportunity to reconsider their initial placement of priorities whilst the facilitator moved priorities on screen to reflect an agreed order of priorities 1–14.

Third round of discussion: The ranked priorities of the two separate groups were combined by the lead facilitator using a geometric mean of the respective ranked positions. All participants came together as one group and the lead facilitator presented the combined results of the group rankings. Participants were then split

Table 4 Collated research priorities that were circulated to all attendees prior to the final workshop. The priorities were listed randomly and assigned a letter rather than a number.

A	Will a greater understanding of the bacteria living in venous leg ulcers result in less infection and/or greater wound healing?
B	How can all patients be given the opportunity to access the specialist assessment and treatment they need?
C	How can the number of patients actually using compression treatment be improved?
D	How can the early detection of deep vein thrombosis be improved?
E	How can leg symptoms and tissue damage be prevented and treated in people with deep venous disease including deep vein thrombosis?
F	How can leg symptoms and tissue damage be prevented and treated in people with superficial venous disease?
G	How can venous leg ulcers be made to heal more quickly?
H	How common is pelvic vein incompetence and is treatment effective?
I	How can varicose veins be prevented from happening or coming back after treatment?
J	How can awareness and education of venous disease be improved?
K	What is the best type of compression for patients with venous disease?
L	How can pain be better controlled in venous leg ulcers?
M	What is the best way to prevent blood clots in the deep veins or lungs (deep vein thrombosis or pulmonary embolism) following treatment of varicose veins?
N	What is the most effective treatment for varicose veins?

into new groups and, again, participants had an opportunity to reconsider the order of priorities before reaching a final ranked 'top 10' list of venous research priorities. As before, the ranked priorities of the separate groups were combined to form a final shared ranking.

Results

Clinician research priority identification and prioritisation

A total of 481 clinicians submitted 1,231 research priorities relating to vascular surgery in general. Of these, 130 venous condition-related research priorities were submitted, 28 of which were excluded outright as they were too specific to single patient experience or there was no apparent priority (eg, nonsensical or broad statement). The remaining 102 priorities were combined and summarised into 13 clinician priorities for scoring, the results of which are shown in Table 2.

Patient/carer research priority identification and prioritisation

A total of 373 patients/carers suggested 582 research priorities related to vascular surgery in general, of which 102 responses were specific to venous conditions. After data cleaning (eg, removing nonsensical suggestions, separating out submissions with multiple suggestions and combining overlapping priorities), 22 research

Table 5 Final ranked 'top 10' list of venous condition research priorities.

Ranking	Question
1	How can all patients be given the opportunity to access the specialist assessment and treatment they need?
2	How can awareness and education of venous disease be improved?
3	How can leg symptoms and tissue damage be prevented and treated in people with deep venous disease including deep vein thrombosis?
4	How can varicose veins be prevented from happening or coming back after treatment?
5	How can the number of patients actually using compression treatment be improved?
6	How can leg symptoms and tissue damage be prevented and treated in people with superficial venous disease?
7	How can venous leg ulcers be made to heal more quickly?
8	What is the best type of compression for patients with venous disease and how do we improve compliance?
9	How can pain be better controlled in venous leg ulcers?
10	How common is pelvic vein incompetence and is treatment effective?

priorities were redistributed for scoring, the results of which are shown in Table 3.

Prior to the workshop, the SIG team pooled clinician and patient/carer research priorities and, after removing duplicate questions, 14 were taken forward for discussion at the final workshop (Table 4). In order to reduce risk of bias, these priorities were randomly ordered and each assigned a letter (rather than a number), before they were circulated to attendees in advance. Attendees reviewed and ranked the research questions in order of importance prior to the workshop.

Final prioritisation workshop

The final prioritisation process was conducted via a virtual online meeting on 27 September 2021. It was attended by two patients and six healthcare professionals (specialist vascular nurses and vascular surgeons) with four observers. The final prioritisation resulted in a final 'top 10' research priority list (Table 5). The priorities are ordered according to importance as determined at the workshop. There was general consensus that the list correctly represented the discussions and viewpoints which occurred in the breakout groups. Results from the participant feedback indicated that 100% agreed or strongly agreed that the process for determining the top 10 priorities was robust and fair.

Discussion

The 'top 10' research priorities for UK venous conditions research have now been established. Using a modified JLA methodology, vascular healthcare professionals and patients with lived experience of venous conditions have jointly agreed the most important priorities for future research in this area. The four

priorities that did not make the ranked 'top 10' list are still considered important.

Overarching themes within the final 'top 10' list relate to access to services, prevention, wound healing, pain management, education and compliance.

Strengths and limitations

The Vascular PSP used well established methods throughout, with oversight from a multidisciplinary steering committee. The Delphi method, often used in PSPs, is regarded as a flexible research technique but one that tends to focus on the identification of expert opinion.²⁶ To mitigate this, the Vascular PSP sought the input of the JLA who provide a transparent and structured framework that emphasises patient participation in PSPs, with patients having an equal voice to clinicians and researchers in influencing the research agenda.^{27,28} It is possible that the modified approach of having two separate processes before bringing the clinician and patient views together may have resulted in a different 'top 10'. However, during the amalgamation process there was already considerable overlap with similar questions and the format of the final workshops did establish shared priorities.

Due to the nature of survey data collection, there is potential for responder bias,²⁹ and consideration was given to whether responses would be adequately reflective of the opinions of people with lived experience of venous conditions and those treating them. Under-representation is recognised as a limitation of many PSPs,^{30,31} and therefore there may have been potentially relevant priorities not submitted and consequently not considered within the analysis. However, the value of PSPs is not in their universal coverage, but in eliciting some new insight and perspectives, especially from people with lived experience.

The Vascular PSP sought to minimise this risk in several ways. The survey was made available in electronic and hardcopy format (with freepost address), and it was promoted via the affiliated charity groups and organisations who regularly work with the population targeted for input. Furthermore, the introduction of SIGs meant that each vascular condition area had a dedicated review of responses by a group of interested professionals and patients that could highlight if there were any expected topic areas missing.

Most workshop participants found the use of a virtual platform acceptable, although it is recognised that potentially lack of access to IT may have limited participation and altered representation. On the other hand, the virtual platform meant patients did not have to travel, and this may have made the workshop more accessible for some patients. Positive comments collected from the feedback survey following the final workshop demonstrated that clinicians and patients found the process of discussing priorities in mixed groups a positive and worthwhile experience. It gave participants an opportunity to hear about the experiences of others and to reassess their initial judgements.³² Although the mixed discussion groups were not strictly balanced in terms of patient attendance, this was carefully moderated through the skilled JLA facilitators who

KEY MESSAGES

- A total of 14 research priorities relating to venous conditions were considered by a group of patients, carers and healthcare professionals.
- Working with the James Lind Alliance, a final list of the 'top 10' most important venous research priorities have been established.
- Venous priorities broadly encompass research aimed at improving access to specialist venous services, prevention, wound healing, pain management, education and compliance

ensured that patient participants were regularly included and able to contribute their views. The final ranking was acknowledged as a compromise, but all participants had some of their high ranked priorities in the final 'top 10'. This is not uncommon for PSPs and is a known factor of a consensus approach.

Implications for future research

The venous condition priorities now provide researchers with essential guidance on where best to focus their efforts in the immediate and long term. Studies and projects should now be developed to address these important priorities and we call on funders to recognise and support the delivery of this work.

Conclusion

The Vascular PSP has established a 'top 10' list of priorities for UK venous conditions research from the shared perspective of vascular patients, carers and health professionals. Researchers and funders can confidently invest resources into these areas of venous conditions research with reassurance that they are clinically relevant and of practical importance to patients.

Conflict of Interest: DC is on the Editorial Board of the *JVSGBI*. TG was the lead JLA advisor for the Vascular PSP and was paid to Chair the Steering Committee for the project. The other authors declare no conflicts of interest.

Funding: The James Lind Alliance Priority Setting Project was funded by a grant from the Vascular Society of Great Britain and Ireland.

Acknowledgements: The Venous Special Interest Group would like to thank all patients, carers and clinicians/healthcare professionals who participated in any of the stages of the JLA PSP. Thanks are extended to the charities and organisations that helped promote the Vascular PSP. We also acknowledge the support and leadership of Professor Ian Chetter in overseeing the Vascular Priority Setting Partnership and in his role as Chair of the Vascular Society Research Committee.

Reviewer acknowledgement: *JVSGBI* thanks the Editorial team for their contribution to the peer review of this work.

References

1. Guest JF, Fuller GW, Vowden P. Venous leg ulcer management in clinical practice in the UK: costs and outcomes. *Int Wound J* 2018;**15**(1):29–37. <https://doi.org/10.1111/iwj.12814>
2. Urwin S, Dumville JC, Sutton M, Cullum N. Health service costs of treating venous leg ulcers in the UK: evidence from a cross-sectional survey based in the north west of England. *BMJ Open* 2022;**12**(1):e056790. <https://doi.org/10.1136/bmjopen-2021-056790>

3. Guest JF, Ayoub N, McIlwraith T, *et al*. Health economic burden that different wound types impose on the UK's National Health Service. *Int Wound J* 2017; **14**(2):322–30. <https://doi.org/10.1111/iwj.12603>
4. Phillips P, Lumley E, Duncan R, Aber A, Woods HB, Jones GL, *et al*. A systematic review of qualitative research experiences of living with venous leg ulcers. *J Adv Nurs* 2018; **74**(3):550–63. <https://doi.org/10.1111/jan.13465>
5. Franks PJ, Morgan PA. Health-related quality of life with chronic leg ulceration. *Expert Rev Pharmacoecon Outcomes Res* 2003; **3**(5):611–22. <https://doi.org/10.1586/14737167.3.5.611>
6. Green J, Jester R. Health-related quality of life and chronic venous leg ulceration: part 1. *Br J Community Nurs* 2009; **14**(12):S12, S4, S16–7. <https://doi.org/10.12968/bjcn.2009.14.Sup6.45538>
7. Smith PC. Debate: Should persistent incompetent truncal veins be treated immediately? The case in support of the statement. *Phlebology* 2015; **30**(1 Suppl):107–10. <https://doi.org/10.1177/0268355515569432>
8. Joyce DP, Walsh SR, Yap CJQ, Chong TT, Tang TY. Compression therapy following ClariVein® ablation therapy: a randomised controlled trial of COMpression Therapy Following MechanO-Chemical Ablation (COMMOCA). *Trials* 2019; **20**(1):678. <https://doi.org/10.1186/s13063-019-3787-4>
9. Zahra S, Arundel CE, Jones K, Davill T, Roberts G, Dumville J. VenUS 6: a randomised controlled trial of compression therapies for the treatment of venous leg ulcers: study design and update. *J Wound Manage* 2022; **13**–7. <https://doi.org/10.35279/jowm2022.23.01.03>
10. Thapar A, Lawton R, Burgess L, *et al*. Compression hosiery to avoid post-thrombotic syndrome (CHAPS) protocol for a randomised controlled trial (ISRCTN73041168). *BMJ Open* 2021; **11**(4):e044285. <https://doi.org/10.1136/bmjopen-2020-044285>
11. Gohel MS, Liu X, Bulbulia R, *et al*. Cost effectiveness analysis of a randomized clinical trial of early versus deferred endovenous ablation of superficial venous reflux in patients with venous ulceration. *Br J Surg* 2019; **106**(5):555–62. <https://doi.org/10.1002/bjs.11082>
12. All Party Parliamentary Group on Vascular and Venous Disease. Venous leg ulcers: a silent crisis. 15 October 2019. Available at: <https://www.vvappg.com/news/venousreport>
13. National Institute for Health and Care Excellence (NICE). Varicose veins: diagnosis and management. [CG168]. 2013. Available at: <https://www.nice.org.uk/guidance/cg168>
14. National Institute for Health and Care Excellence. UrgoStart for treating diabetic foot ulcers and leg ulcers. Medical technologies guidance [MTG42]. 2019. Available at: <https://www.nice.org.uk/guidance/mtg42>
15. Carradice D, Forsyth J, Mohammed A, *et al*. Compliance with NICE guidelines when commissioning varicose vein procedures. *BJS Open* 2018; **2**(6):419–25. <https://doi.org/10.1002/bjs5.95>
16. Tallon D, Chard J, Dieppe P. Relation between agendas of the research community and the research consumer. *Lancet* 2000; **355**(9220):2037–40. [https://doi.org/10.1016/S0140-6736\(00\)02351-5](https://doi.org/10.1016/S0140-6736(00)02351-5)
17. Tan A, Nagraj SK, Nasser M, Sharma T, Kuchenmüller T. What do we know about evidence-informed priority setting processes to set population-level health-research agendas: an overview of reviews. *Bull Natl Res Cent* 2022; **46**(1):6. <https://doi.org/10.1186/s42269-021-00687-8>
18. Chalmers I, Atkinson P, Fenton M, Firkins L, Crowe S, Cowan K. Tackling treatment uncertainties together: the evolution of the James Lind Initiative, 2003–2013. *J R Soc Med* 2013; **106**(12):482–91. <https://doi.org/10.1177/0141076813493063>
19. The Vascular Priority Setting Partnership: setting the agenda for UK vascular research. *J Vasc Soc GB Irel* 2021; **1**(Suppl 1):S1–S31. <https://doi.org/10.54522/jvsgbi.2021.005>
20. Bosanquet D, Nandhra S, Wong K, Long J, Chetter I, Hinchliffe R. Research priorities for lower limb amputation in patients with vascular disease. *J Vasc Soc GB Irel* 2021; **1**(1):11–6. <https://doi.org/10.54522/jvsgbi.2021.001>
21. Smith GE, Long J, Wallace T, Carradice D, Chetter IC. Identifying the research priorities of healthcare professionals in UK vascular surgery: modified Delphi approach. *BJS Open* 2021; **5**(2):zraa025. <https://doi.org/10.1093/bjsopen/zraa025>
22. Pymmer S, Harwood A, Long J, Chetter I, Saratzis A, Coughlin P. Research priorities for patients with peripheral arterial disease: a James Lind Alliance Priority Setting Partnership. *J Vasc Soc GB Irel* 2022; **2**:23–9. <https://doi.org/10.54522/jvsgbi.2022.011>
23. De Siqueira J, Fielding C, Pettigrew G, *et al*. Defining priorities in vascular access research. *J Vasc Soc GB Irel* 2022; **2**:30–3. <https://doi.org/10.54522/jvsgbi.2022.013>
24. Lawson J, Bown M, Bicknell C, Long J, Gronlund T. Research priorities for aortic diseases: results of the James Lind Alliance/Vascular Society GBI priority setting exercise. *J Vasc Soc GB Irel* 2022; **2**:34–41. <https://doi.org/10.54522/jvsgbi.2022.009>
25. Long J LR, Sidapra M, Gronlund T, Chetter IC. Research priorities for vascular wounds: results of the Vascular Society GBI/James Lind Alliance Priority Setting Process. *J Vasc Soc GB Irel* 2022; **1**(4):110–116. <https://doi.org/10.54522/jvsgbi.2022.027>
26. Delbecq A, Ven A, Gustafson D. Group Techniques for Program Planning: A Guide to Nominal Group and Delphi Processes. Glenview, Illinois: Scott Forman and Co, 1986. <https://doi.org/10.1177/105960117600100220>
27. Staley K, Crowe S, Crocker JC, Madden M, Greenhalgh T. What happens after James Lind Alliance Priority Setting Partnerships? A qualitative study of contexts, processes and impacts. *Res Involv Engagem* 2020; **6**:41. <https://doi.org/10.1186/s40900-020-00210-9>
28. James Lind Alliance. The James Lind Alliance Guidebook. Version 10. 2021. Available from: <https://www.jla.nihr.ac.uk/jla-guidebook/downloads/JLA-Guidebook-Version-10-March-2021.pdf>
29. Choi BCK, Pak AWP. A catalog of biases in questionnaires. *Prev Chronic Dis* 2005; **2**(1):A13.
30. Finer S, Robb P, Cowan K, Daly A, Shah K, Farmer A. Setting the top 10 research priorities to improve the health of people with type 2 diabetes: a Diabetes UK–James Lind Alliance Priority Setting Partnership. *Diabet Med* 2018; **35**(7):862–70. <https://doi.org/10.1111/dme.13613>
31. Rankin G, Summers R, Cowan K, *et al*. Identifying priorities for physiotherapy research in the UK: the James Lind Alliance Physiotherapy Priority Setting Partnership. *Physiotherapy* 2020; **107**:161–8. <https://doi.org/10.1016/j.physio.2019.07.006>
32. Hsu C-C, Sandford B. The Delphi technique: making sense of consensus. *Practical Assessment, Research and Evaluation* 2007; **12**. <https://doi.org/10.7275/pdz9-th90>