



The Skin Cancer Surgery James Lind Alliance Priority Setting Partnership

*Shaping priorities for future research into
surgical treatment for skin cancer*

Partners / Supporting organisations





Table of Contents

	Page
<u>Background: our story</u>	3
<u>Priority Setting Partnership scope</u>	4
<u>How we got to the top 10</u>	5-6
<u>The top 10</u>	7-13
<u>Other priorities</u>	14-15
<u>Call to action</u>	16
<u>Support and funding</u>	17
<u>Steering group</u>	18-19
<u>Acknowledgments</u>	20

Background

Our Story

Skin surgery is the primary form of treatment for most skin cancers. Many previously reported trials looking at the outcomes of skin cancer surgery are of poor quality, under powered or have high risk of bias which has left many gaps in the literature regarding best practice.

This James Lind Alliance (JLA) priority setting partnership (PSP) was co-led by Dr Aaron Wernham and Dr David Veitch, both consultant Dermatologists in the UK with a specialist interest in skin cancer and skin surgery. Through undertaking research fellowships with the UK Dermatology Clinical Trials Network (UKDCTN), they learned the importance of priority setting in other skin related topics and identified the need for this exercise in skin cancer surgery research. The aim of this work was to ensure that future research is prioritised based on what is important to both patients with skin cancer and clinicians who manage this group of conditions.

The PSP was launched in October 2019, not long prior to the Covid-19 outbreak which inevitably delayed progress. However, through innovative working, the momentum was maintained and the PSP completed in May 2022 following completion of the final workshop. This PSP has also had collateral benefits in bringing together representatives from across the range of specialties who manage skin cancer to continue working closely on delivering high quality research outcomes. The steering group recognises this part of the PSP is only the beginning of the journey. We must now spread the work and disseminate these findings to ensure stakeholders take note and academics take forward these priorities and develop research studies.

PSP Scope

The scope of the PSP tells us what topics are covered by this PSP. This was decided by the Steering Group before the PSP began.

If research questions were submitted which did not fit this scope, for example, were related to the causes of skin cancer rather than being related to skin cancer surgery, they were excluded.

The Steering Group has retained this important data and will look to publish the core themes of submitted questions not within scope.

Our Scope was defined as:

- Uncertainties relevant to skin cancer surgery for all types of suspected primary skin cancer.
- Uncertainties relevant to surgery for local and regional skin cancer recurrence.
- Uncertainties related to service delivery or the patient pathway / multi-disciplinary teams (MDTs) which result in delivering skin cancer surgery.
- Examples include anything related to the consent, anaesthesia, antibiotics, variations in the procedure, scar outcomes, wound care, follow-up related to scar outcome or surgical outcome.

How We Got To The **TOP 10**

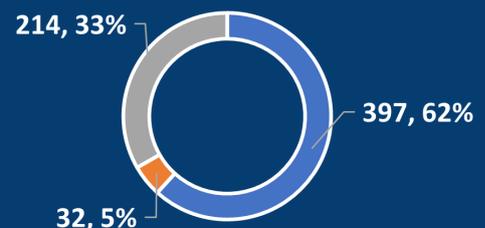
We formed a Steering Group

Skin cancer surgery is performed by a range of specialties including Dermatology, Plastic surgery, Maxfax, ENT and GPs. Our steering group aimed to represent all specialties involved in the surgical treatment of skin cancer. We also included a similar number of patient and skin cancer charity representatives.

We asked you to put forward Research Questions

A national online survey was developed to ask healthcare professionals, patients and carers to put forward questions about skin cancer surgery which research should answer. This was open from 11th January 2021 - 11th April 2021 and was sent to healthcare professionals via membership societies e.g. British Society for Dermatologic Surgeons, Reconstructive Surgical Trials Network, British Oculoplastic Surgery Society, British Association of Oral and Maxillofacial Surgeons. The survey was promoted to patients and carers via social media, patient forums and in clinics to reach a broad range of age groups and backgrounds. The PSP received 643 responses and 1337 research suggestions were put forward.

Who responded?



- People who have had skin cancer surgery
- People who care for somebody who has had skin cancer surgery
- A health professional who operates on skin cancer

Categorised and checked against Evidence

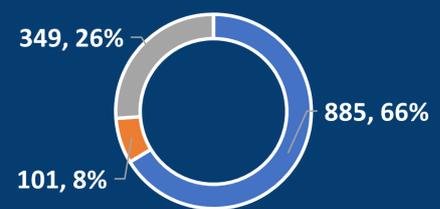
We initially removed 393 questions which were considered out of scope of this PSP. This left 944 separate questions in scope. These were then categorised into topics such as teaching, scarring, reconstruction and the environment. Summary research questions were developed from these to make 39 broader research questions. The evidence was checked but none were felt to be fully answered by previous research. These 39 questions were entered into a ranking survey.

How We Got To The **TOP 10**

We asked you to rank these

A second national online survey was distributed and open from 15th January to 18th March 2022. Patients, carers and clinicians were asked to choose their top 10 priorities for research from a list of 39 research questions. There were 1335 responses. The top 25 ranked questions were put forward for discussion in the final workshop. One additional question felt important by the steering group to include in the final workshop discussion was also added, making 26 questions.

Who responded?



- People who have had skin cancer surgery
- People who care for somebody who has had skin cancer surgery
- A health professional who operates on skin cancer

Final Workshop - Top 10 agreed

The final workshop was attended by a range of clinicians, patients and carers, the majority independent from the rest of the process. Through a rigorous process of debate and discussion, the top 10 were finally agreed on.



The Top 10 Priorities For Skin Cancer Surgery Research

1

What are the effects on patient outcomes from delays in skin cancer surgery?

What is the most effective way of determining the borders of the skin cancer before skin cancer surgery?

2

3

What are the best approaches to ensure that patients feel fully informed about their skin cancer surgery? e.g. scar results, other treatment options

What is the best management of incompletely or narrowly removed keratinocyte cancers? These include basal cell (BCC) and squamous cell cancers (SCC).

4

5

What are the psychological support needs following skin cancer surgery and how can these be best supported? (e.g. for depression, anxiety)

The Top 10 Priorities For Skin Cancer Surgery Research

6

What factors affect whether skin cancers come back following skin cancer surgery?

What is the role of Sentinel Lymph Node Biopsy (SLNB) for skin cancer? (e.g. Melanoma, Merkel cell, SCC)

7

What is the role of wide local excision (extra skin taken around the scar) for melanoma and lentigo maligna in reducing recurrence?

8

What excision margins (margin of normal tissue removed around the skin cancer) give the best balance between scarring and cure for different skin cancers?

What are the best ways to measure outcomes after skin cancer surgery? (e.g. the scar appearance, patient experience, pain)

9

10

How does Mohs surgery (a specialist technique to confirm cancer clearance before repairing the wound) compare to standard removal with immediate or delayed repair of skin cancer?

1

What are the effects on patient outcomes from delays in skin cancer surgery?

The Covid-19 pandemic resulted in significant backlogs for skin surgery across the United Kingdom. This continues to have an impact on services, compounded by ever-increasing rates of skin cancer incidence. It's unclear what harm these delays cause for patients waiting to have treatment for skin cancer. Delays were considered the most significant concern amongst patients and clinicians and hence a better understanding of the impact of these delays was felt of critical importance making this the number one ranked priority for research.

What is the most effective way of determining the borders of the skin cancer before skin cancer surgery?

2

Knowing the borders or margins of the skin cancer prior to surgery enables more accurate skin surgery to be performed. The majority of skin cancers are still removed with standard surgical margins which are expected to be sufficient for the majority of skin cancer removal. Finding a technique to identify the borders of skin cancer at the offset prior to surgery would significantly improve patient outcomes.

3

What are the best approaches to ensure that patients feel fully informed about their skin cancer surgery? e.g. scar results, other treatment options.

Patients like to feel fully informed about any surgical treatment for skin cancer. This question seeks to identify research which can allow us to better understand how to consent patients effectively and deliver the information which patients want to know. This will allow patients to make better, informed decisions about their care with prior expectations matching those with the eventual outcome.

What is the best management of incompletely or narrowly removed keratinocyte cancers? These include basal cell (BCC) and squamous cell cancers (SCC).

4

This is a relatively common occurrence for keratinocyte skin cancers which together form the majority of skin cancer, particularly in the elderly and were previously better known under the umbrella of "non-melanoma skin cancer". Skin cancer multi-disciplinary teams regularly discuss cases of close margins and there remains limited evidence or understanding about the best approach to manage patients with incompletely removed skin cancers or narrowly removed (close margins) skin cancers.

5

What are the psychological support needs following skin cancer surgery and how can these be best supported? (e.g. for depression, anxiety)

Undergoing skin cancer surgery can have a significant impact on psychological well-being and is something clinicians need to recognise prior to surgery and monitor during and after surgery. Undertaking research to better understand this impact and how this can be effectively managed will enable us to improve patient care.

What factors affect whether skin cancers come back following skin cancer surgery?

6

This is quite a broad research question. In the final workshop, it was recognised there was some overlap with other more specific questions which will affect whether a skin cancer returns. However the concept of whether a skin cancer comes back after surgery was felt to be particularly important and after much debate this was felt to be a high priority. This aims to cover other factors not in the top 10 priorities which might also affect skin cancer recurrence.

7

What is the role of Sentinel Lymph Node Biopsy (SLNB) for skin cancer? (e.g. Melanoma, Merkel cell, SCC)

The surgical procedure known as Sentinel Lymph Node Biopsy is now commonly undertaken in patients diagnosed with Melanoma for stage 1B and above. With emerging evidence, its role for this type of skin cancer has become clearer but further research is still required and particularly in other types of skin cancer to better understand its role and how this can benefit patient outcomes.

What excision margins (margin of normal tissue removed around the skin cancer) give the best balance between scarring and cure for different skin cancers?

8

This research question links in with priority two about ensuring skin cancers are fully removed. Whilst priority two looks at how margins can be more accurately determined prior to undertaking skin cancer surgery, this question focuses on the standard margins required to give the best balance between scarring and cure (without more advanced technology to inform us what the exact margins are).

What is the role of wide local excision (extra skin taken around the scar) for melanoma and lentigo maligna in reducing recurrence?

After some debate in the final workshop, a decision was made to make this question joint 8th place. It was felt that the role of wide local excision for melanoma and lentigo maligna came under the umbrella of excision margins as a whole. This question relates to the extra margin of skin taken around the initial scar once the melanoma has been removed and confirmed. This remains standard practice in most units based on current guidance although the evidence of actual benefit has always been limited. Debate has commenced around wider excision margins being decided on an individual basis rather than a set format, but strong research evidence is needed to inform this.

9

What are the best ways to measure outcomes after skin cancer surgery? (e.g. the scar appearance, patient experience,

This question is about how patient outcomes or results are measured following skin cancer surgery. It was recognised that good quality research cannot be undertaken until we agree how to best measure the outcomes of skin surgery. There are a number of different scales or measuring instruments which might be used to measure the outcomes of surgery like infection or scar appearance, but little agreement on which are best. Developing an agreed set of outcome measures (or otherwise developing better instruments if none exist which are suitable) ensures that all studies include these and allows for comparisons between research studies. It also allows for research outcomes to be combined between studies more easily.

How does Mohs surgery (a specialist technique to confirm cancer clearance before repairing the wound) compare to standard removal with immediate or delayed repair of skin cancer?

10

This research question is about a specialist technique called Mohs micrographic surgery. This confirms clearance of a skin cancer during the surgery through examination under the microscope and ensures complete examination of the cancer margin (which is not the case with normal surgical excisions). At the final workshop, this question was felt to be time critical because the use of Mohs surgery is increasing throughout the UK but the evidence of benefit remains uncertain, particularly for squamous cell carcinoma and rarer types of skin cancer.

Other priorities

Whilst the top 10 priorities are the most important questions for research to answer, priorities 11-26 are important too. We have included these below so academics are aware of these questions.

Priorities 11–25

11. What is the role of complete lymph node removal and how does it compare with other treatments for skin cancer lymph node recurrence e.g. radiotherapy or targeted drug treatment (immunotherapy)?

12. How effective are different treatments compared to standard surgical removal for keratinocyte cancer? These include basal cell (BCC) and squamous cell cancers (SCC).

13. What are the outcomes of skin cancer surgery performed in the community setting (GP practices for example) versus the hospital setting?

14. What is the role of non-surgical treatments in the management of lentigo maligna or melanoma in situ? (these are abnormal mole cells in the surface skin layer only which may lead to melanoma, sometimes known as “pre-cancers”) e.g. cream or radiotherapy

15. What are the best ways to reduce or treat complications after lymph node surgery? (e.g. limb swelling (lymphoedema), nerve damage, infection, pain)

16. What are the best methods to reduce wound infections after skin cancer surgery?

Other priorities

17. What is the role of radiotherapy after skin cancer surgery?
18. What is the best way to prevent and treat nerve damage or numbness after skin cancer surgery?
19. What impact do skin cancer multidisciplinary teams (MDT) have on skin cancer surgery outcomes?
20. What are the most effective ways to communicate the results from skin cancer surgery to patients?
21. What best improves wound healing, apart from the dressing, for skin cancer surgery? (e.g. physiotherapy, occupational therapy, psychological support, scar massage)
22. What are the best approaches for successful skin grafts after skin cancer surgery? (e.g. dressings, donor skin, healing and appearance).
23. Which surgical repair after skin cancer removal provides the best outcomes (cosmetic and patient satisfaction) – flap, graft or secondary intention?
24. What can help with scarring after skin cancer surgery? (e.g. surgical technique, massage, creams)
25. Which approach to wound closure provides the best results in skin cancer surgery? (e.g. pattern of stitches, stitch material, timing of removal)

Call to Action

This is just the beginning...

We would like to give thanks to all the patients, carers and clinicians who gave time to submit their questions and help rank these in our surveys. We now need to ensure that these efforts are respected and recognised. To enable this we advise the following:

Research Funders: Include these priorities in future research funding calls and give priority to research ideas which are ranked highest. Develop strategies to encourage academics to put forward research ideas related to these topics.

Researchers: Develop research ideas with focus on answering the highest priority questions and reference the Skin Cancer Surgery JLA PSP in applications for funding. [Please inform us](#) if you are developing research ideas in the top 20.

Everyone: Please share this report with others on platforms available to you including social media, academic and patient forums to raise awareness of the need for more research into skin surgery research.

We welcome the opportunity to speak with any researchers, funders, organisations, or other stakeholders who can help address these priorities (visit skinsurgerytrials.org / email aaron.wernham@nhs.net). To continue receiving updates on this initiative and our progress, sign up for our updates.

Lets keep up the momentum...

Support & Funding

This work was co-funded by the UK Dermatology Clinical Trials Network (UKDCTN) and British Society For Dermatological Surgery (BSDS). Support to deliver the PSP, ensuring the process was unbiased and representative, was provided by the James Lind Alliance.

UK Dermatology Clinical Trials Network

The UK Dermatology Clinical Trials Network (UKDCTN) was formed in 2002 with the aim of developing high quality, independent, multi-centre clinical trials for the treatment or prevention of skin disease. The UKDCTN collaborative network of dermatologists, dermatology nurses, health services researchers and patients throughout the UK and Ireland. The UKDCTN co-funded this PSP.



The British Society For Dermatological Surgery

The British Society For Dermatological Surgery (BSDS) aims to promote, for the public benefit, interest in and knowledge of Dermatological Surgery. The BSDS co-funded this PSP with the UKDCTN.



The James Lind Alliance

The James Lind Alliance infrastructure is hosted by the National Institute for Health and Care Research to provide the support and processes for Priority Setting Partnerships (PSPs). PSPs aim to help patients, caregivers and clinicians work together to agree which are the most important treatment uncertainties affecting their particular interest, in order to influence the prioritisation of future research in that area. For further information visit

www.jla.nihr.ac.uk



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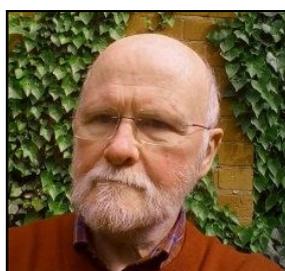
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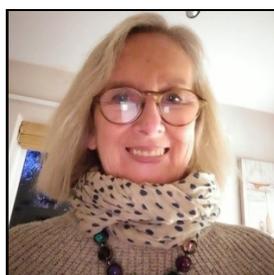
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Acknowledgements

We would like to acknowledge the support we have received from professional member organisations representing clinicians and the vital charities who support patients with skin cancer.

We would also like to acknowledge the patient representatives, carers and clinicians who attended the final workshop to help decide the top 10 priorities for skin cancer surgery research.

Our Partners



The Skin Surgery Research Collaborative

<https://www.skinsurgerytrials.org>

The Skin Surgery Research Collaborative was created as a direct result of this Priority Setting Partnership. The Collaborative aims to bring together the specialties that undertake skin cancer surgery and work together to support the development of research alongside the speciality research networks.

Keep in touch

Interested in the data?

The data from this initiative will be made publicly available on the skin surgery trials website (<https://www.skisurgerytrials.org>) and via the James Lind Alliance (<https://www.jla.nihr.ac.uk/priority-setting-partnerships/skin-cancer-surgery>). The open-access data will include the original questions submitted, with associated summary questions and some de-identified demographics data.

We hope to encourage interest in these priorities and stem further patient-oriented research on these topics.

How to reference this report:

The Skin Surgery PSP Steering Group. The James Lind Alliance Skin Cancer Surgery Priority Setting Partnership Final Report. Jul 2022; 1-21

Sign up to our newsletter and follow our research collaborative

<https://www.skisurgerytrials.org/>

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