

Patient Experiences on wearing an immobilisation mask for Head and Neck cancer and outlook for change

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Rosemere Cancer Centre

- Situated in the Northwest of England
- Patient population 1.6m
- Treat 200-240 patients per day
- ~80-90 radiographers
- 8 Elekta Linear accelerators (2 with 6DOF couch) all with AlignRT for set up and monitoring of patients
- 2 Philips wide bore scanners with SimRT
- 2 offline workstations in data entry for SGRT prep
- Currently using SGRT for all breast, thorax, SABR level 1 and 2, pelvis, palliative, mediastinal breathold (all tattoo free).
- Currently evaluating open face masks for Brain and project assessing different mask vendors for open face masks for H&N



Background

- ▶ The increased use of SGRT is enabling departments to adapt immobilization to improve patient comfort and experience without compromising accuracy and outcomes.
- ▶ There are several types of open-face masks available for radiotherapy. Recent research, including a study by Malone et al 2025, looked at patient reproducibility during treatment when using open versus closed masks. Their findings gave us confidence to explore introducing them here at Rosemere Cancer Centre.
- ▶ Emotional distress from use of immobilisation can vary in patients in some cases resulting in medication or even not having the treatment.
- ▶ Radiographers' stories of patients being unable to manage treatment with an immobilisation mask.

Aims

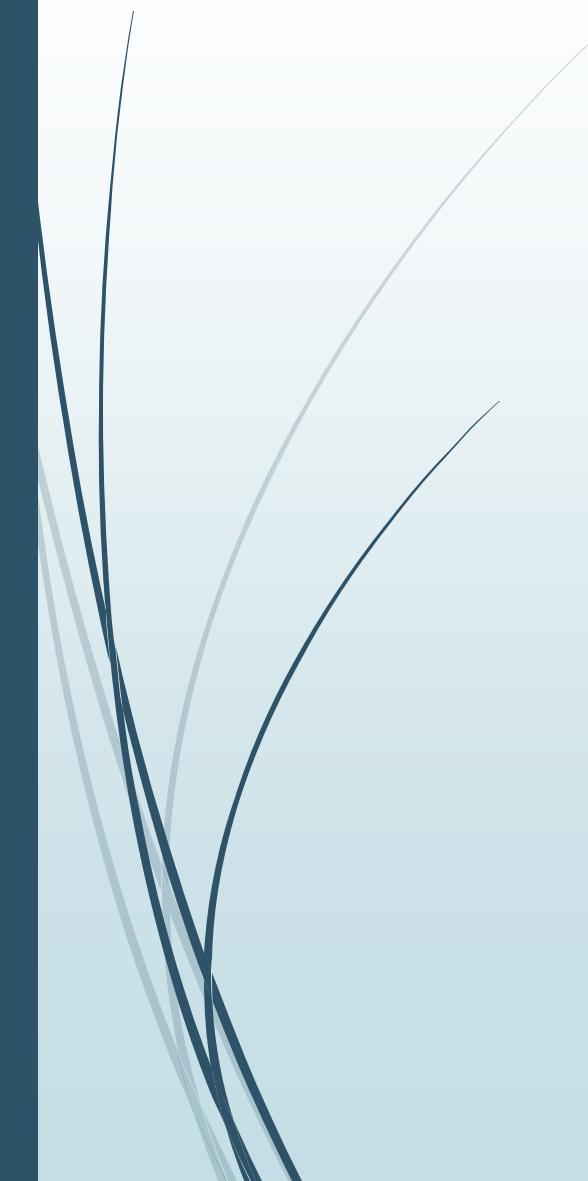
Gain an understanding of patient experience with closed face masks

Explore what, if any assistance was needed during treatment to tolerate the closed mask

What were the patients' feelings when they were initially informed about wearing a mask for treatment and did their feelings change throughout the treatment course

Would patients prefer open face mask and would they be willing to travel to another centre for one

Given a choice which mask style would a patient pick



Design

An online questionnaire accessed via a QR code with a mixture of closed and open questions and free text boxes were completed by the participants.

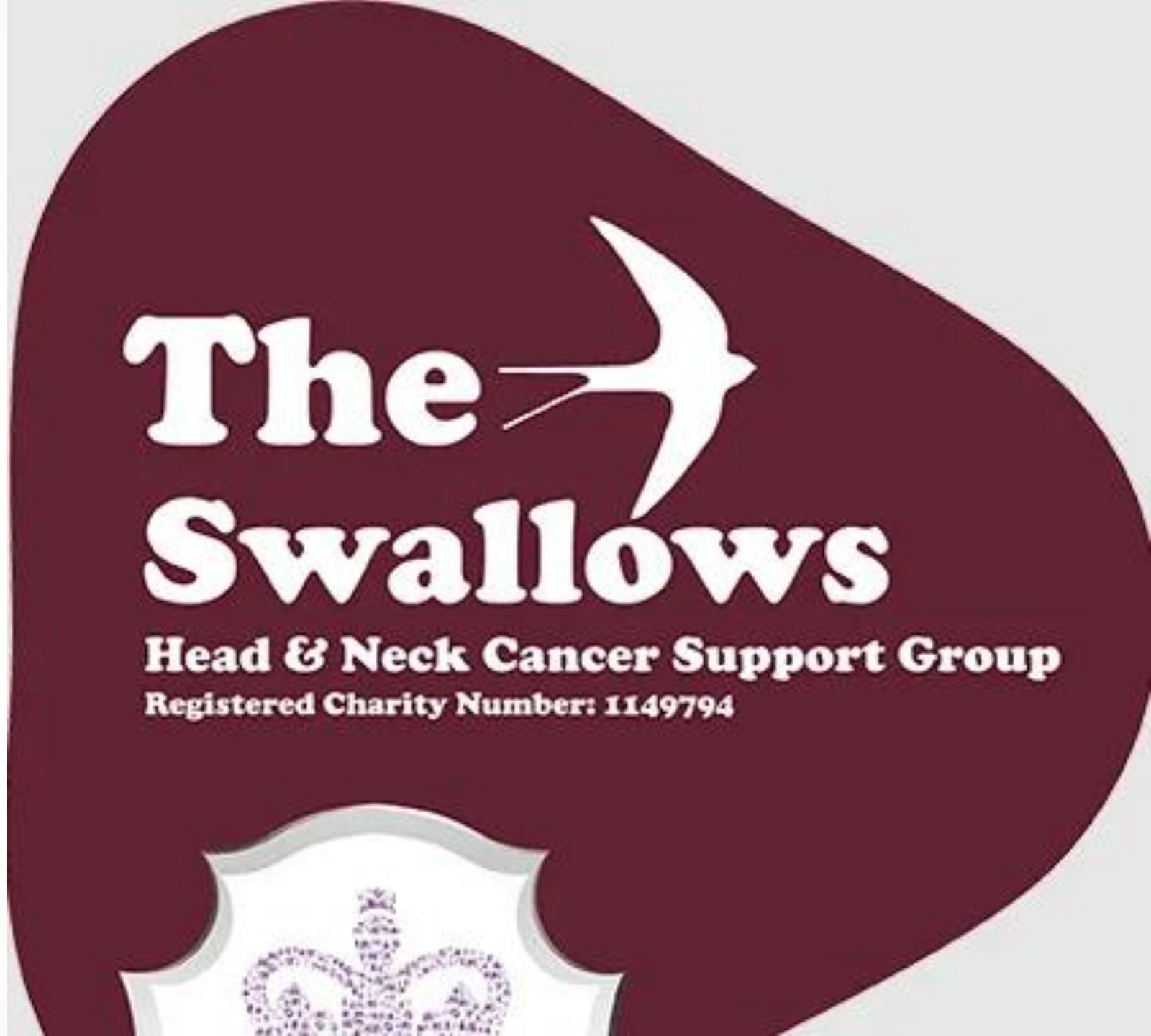
Peer reviewed

Questions used a rating scale

A sample of patients completed the questionnaire in the community when they attended the Swallows charity group, some in active treatment and some after treatment had completed.

The Swallows group

- ▶ The Swallows is a Head and Neck Charity group set up by patients to provide support to fellow patients and their carers.
- ▶ Support groups across the country.
- ▶ Access for patients who have completed their radiotherapy pathway





Patient population data

- ▶ Over 85% of the patients had between 4-6 weeks or more of treatment
- ▶ The range of years that patients had received radiotherapy ranged between 1999-2023
- ▶ 85% wore a closed H&N face mask for treatment.
- ▶ The age range of the patients completing the questionnaire was between 26-81 years old.

Centres where patients had treatment

Bath
Exeter
London
Middlesex
Newcastle
Aberdeen
Cambridge
Canterbury
Coventry
Derby
Derry
Edinburgh
Essex
Exeter
Guildford
Indiana
Ipswich

Leeds
Lincoln
London
New Zealand.
Newcastle
Northampton
Nottingham
Preston
Southampton
Southend
Stockholm
Sutton
Taunton
Torquay
Washington DC
Worcester

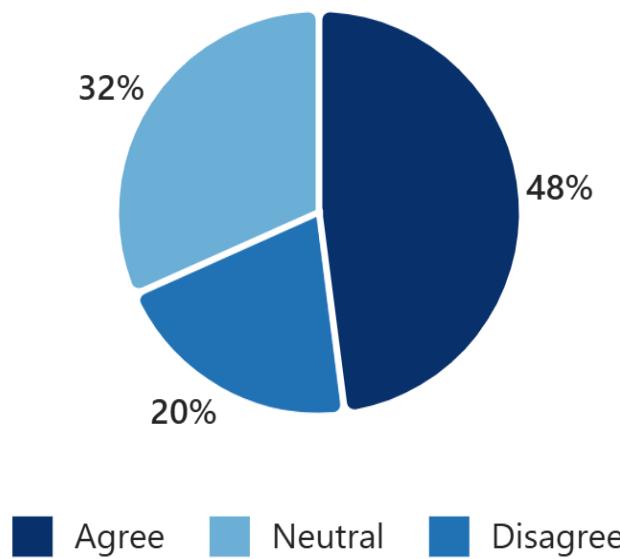


Results

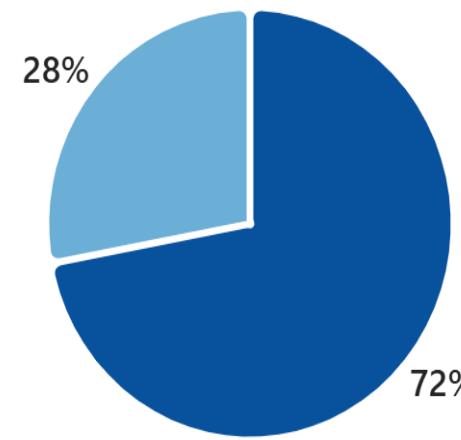
101 participants completed the questionnaire in the community when they attended the Swallows charity group, some in active treatment and some after treatment had completed.



Did the patients feel fine about wearing the mask when they were informed of it?



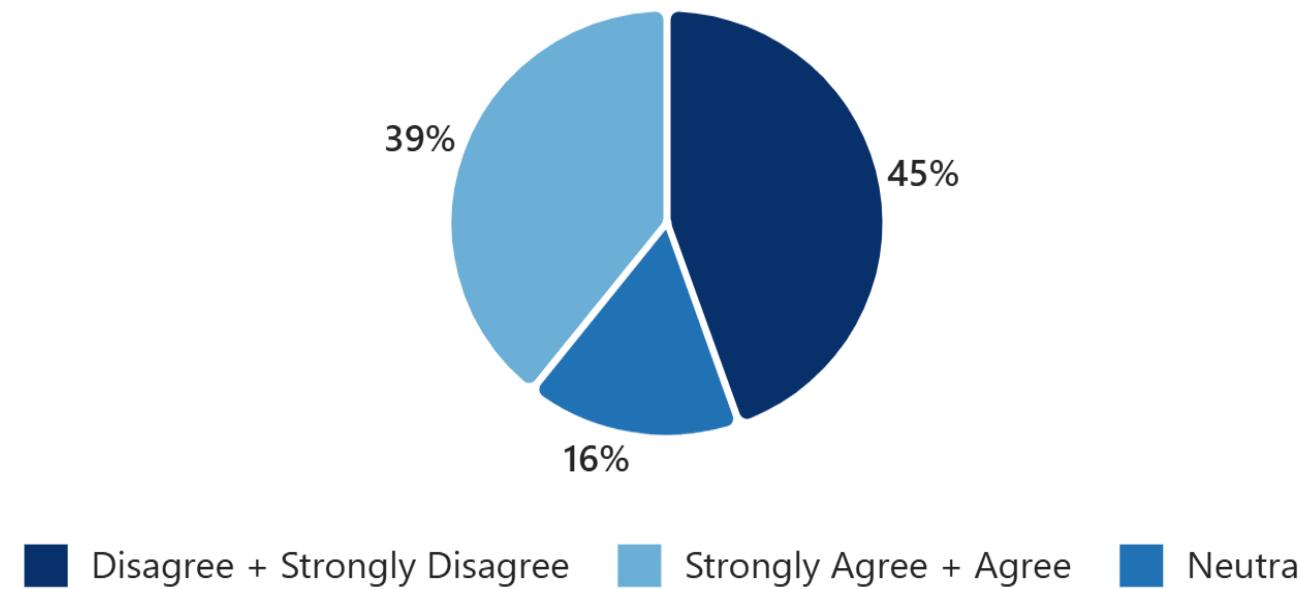
How comfortable did the patients feel wearing the mask?



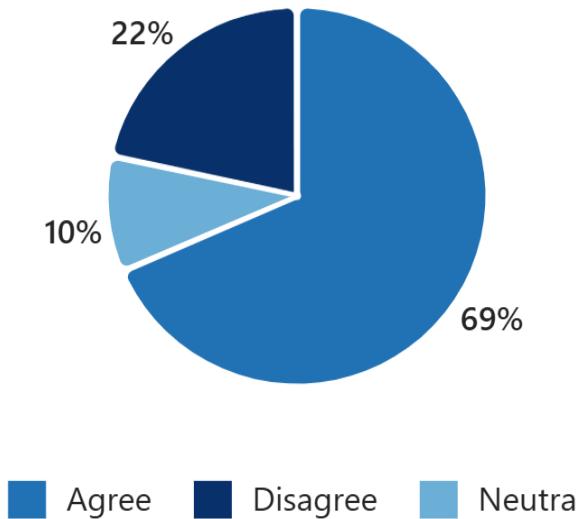
■ Responses 5-10 (Less Comfortable)

■ Responses 1-4 (Comfortable)

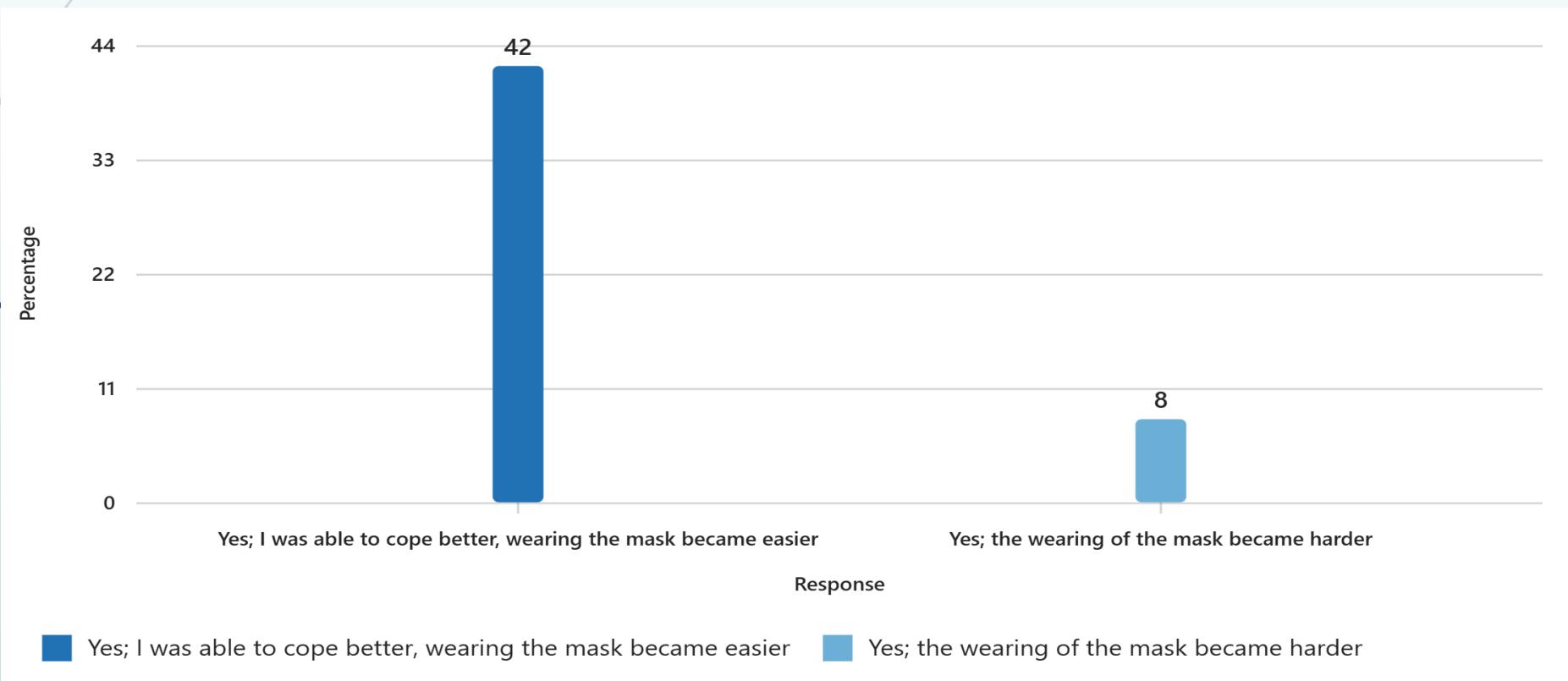
Were the patients able to relax wearing the mask during treatment?



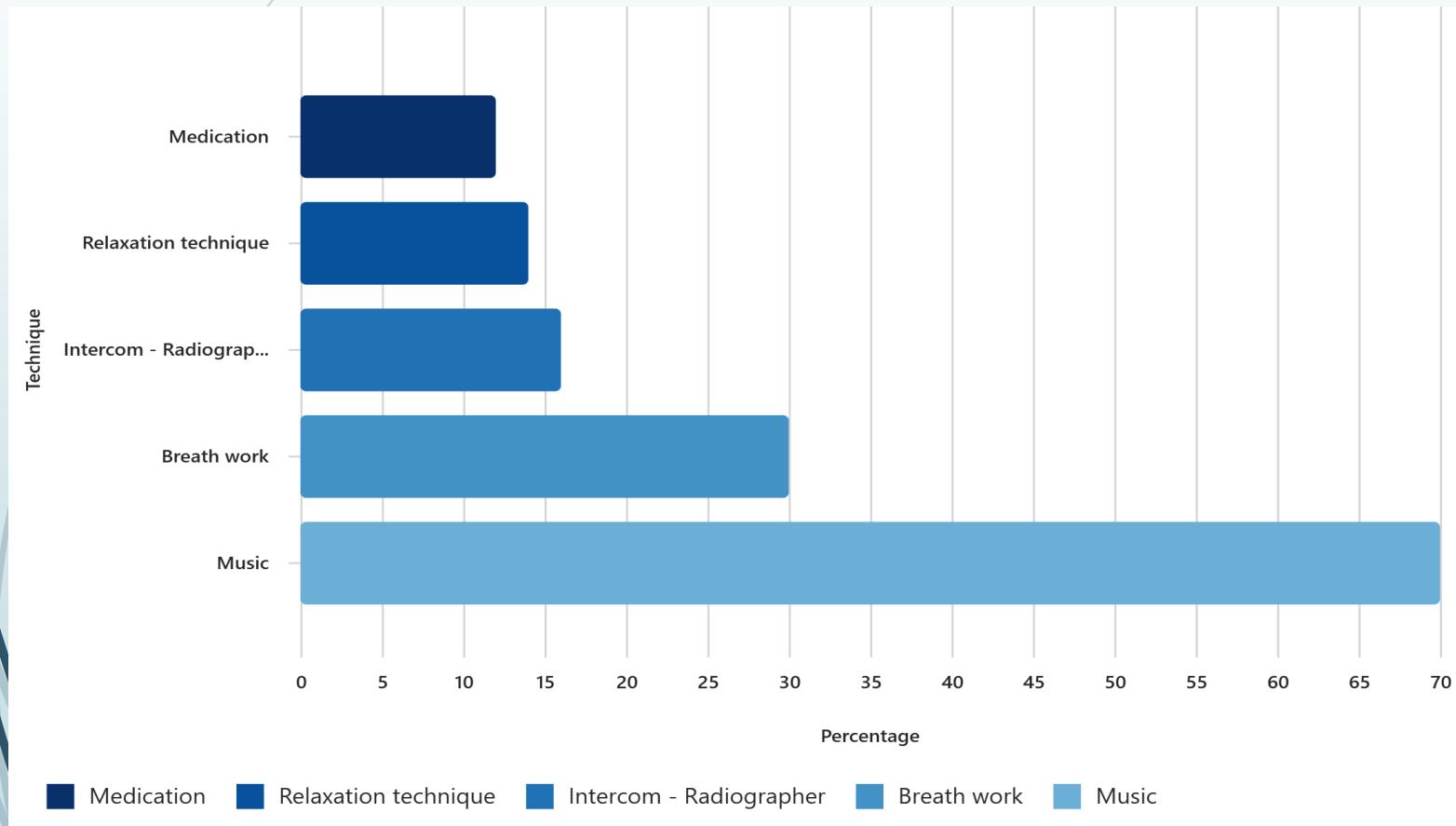
The mask didn't cause any pain during treatment?



Did the patients' feelings change towards the mask during treatment?



Top 5 Support Techniques to help with relaxation during treatment

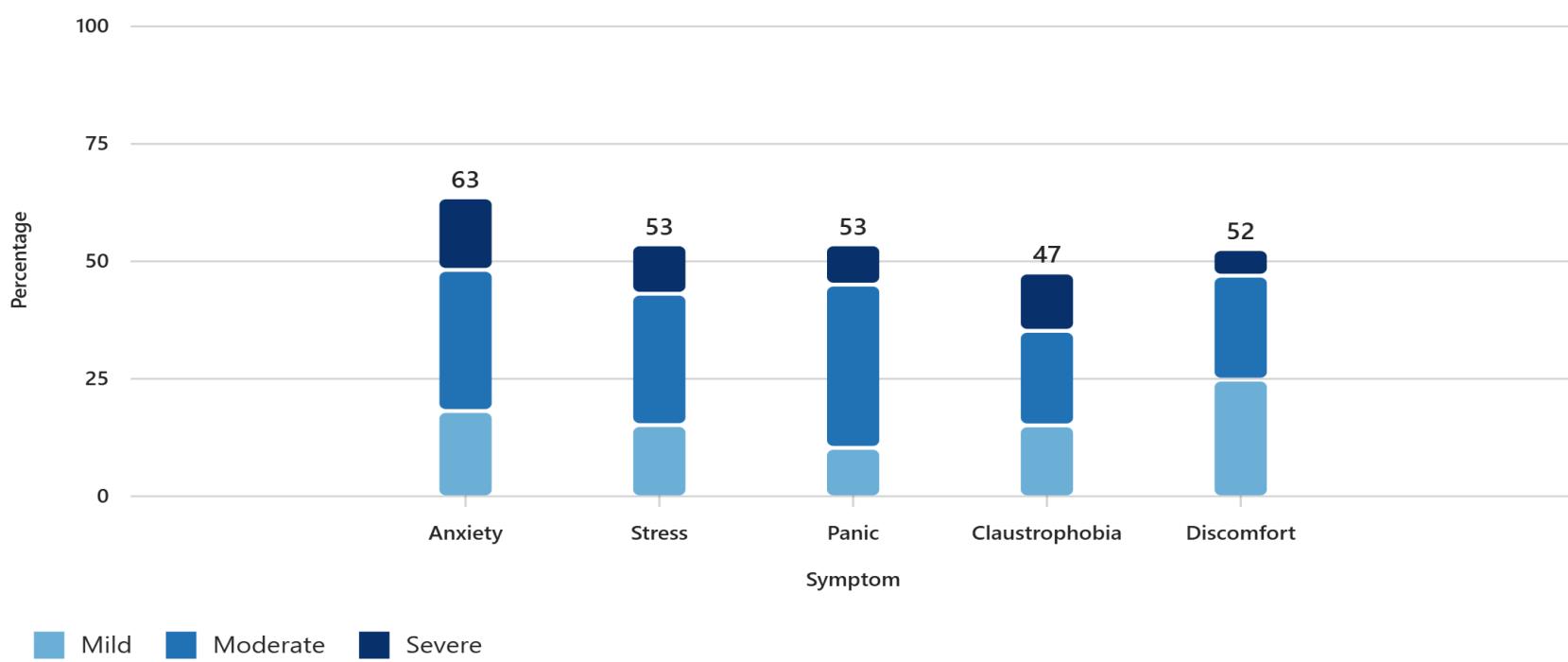


58%

Received support & implemented techniques to help cope wearing the Mask.

If I had not had a mild sedative before each session and because of being claustrophobic I don't know how I would have got through the 6 weeks.

Patient experiences when wearing the mask



Mask choices in questionnaire



Closed head and shoulders



Closed head only



Open head and shoulders

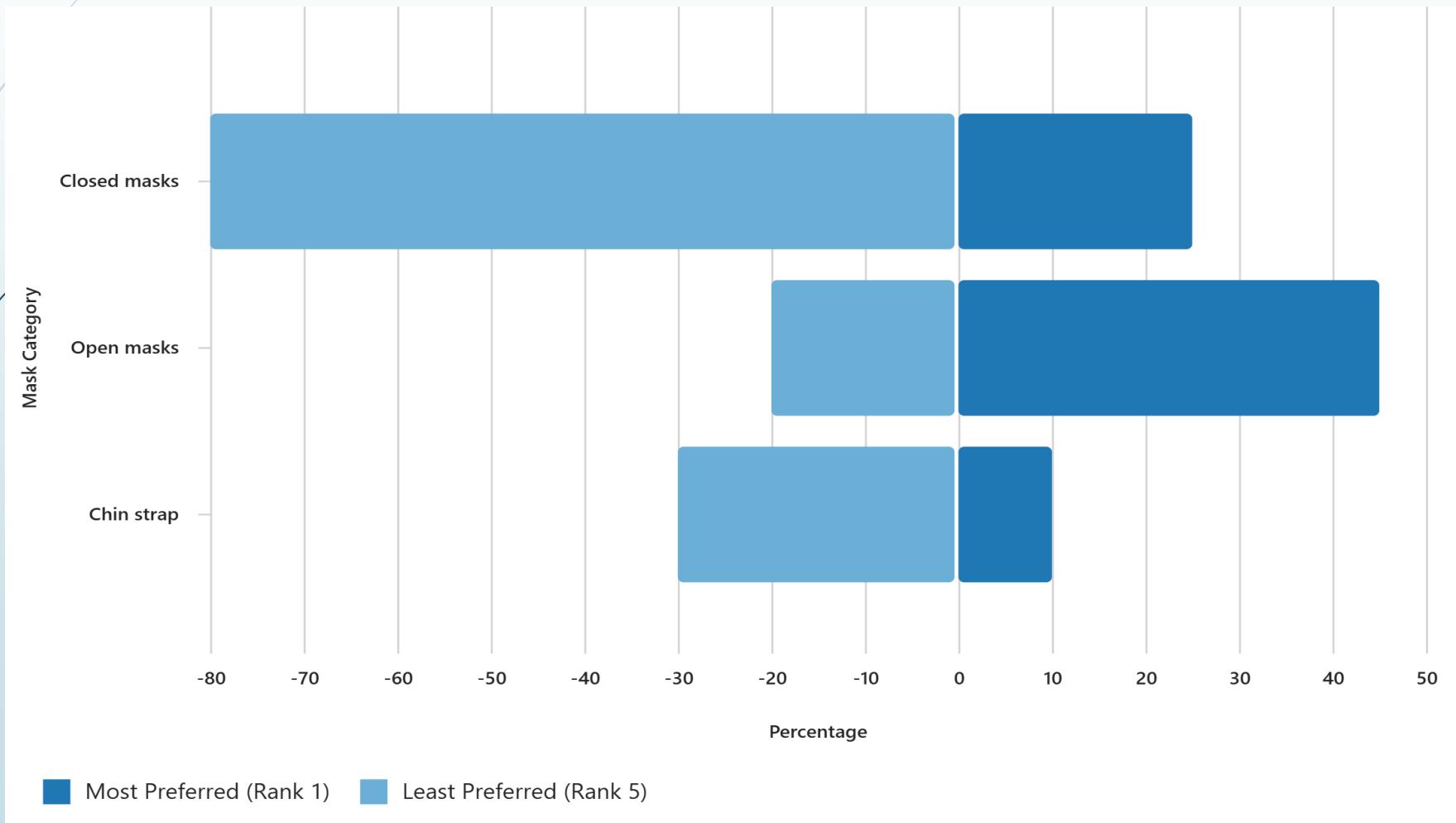


Open head only



Chin strap

Preferred mask choices

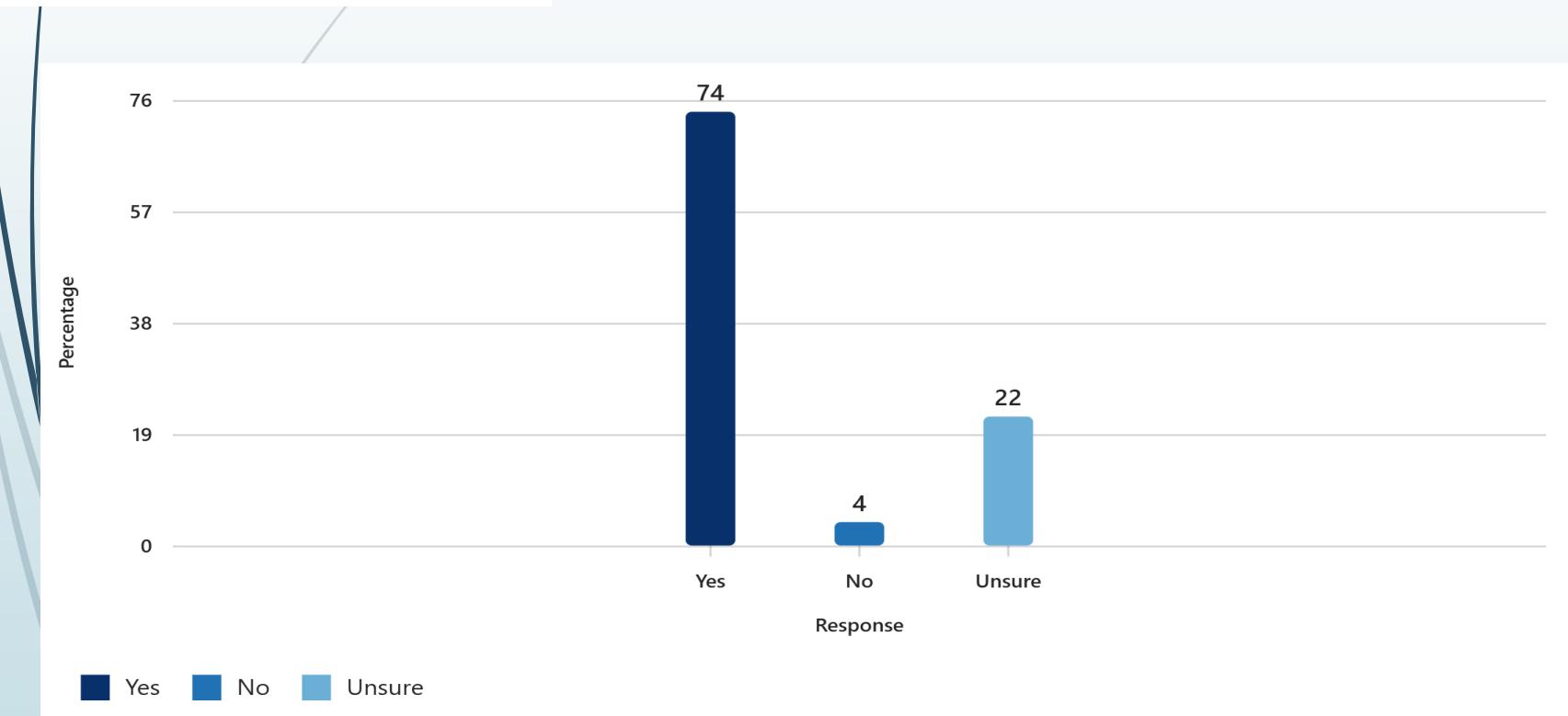




Open head and shoulders

Open head only

If you were given a choice, would you have preferred an open face mask?



Average
19.5 **Extra**
Miles for
treatment
with an open
face mask

Themes for preferring open face mask



My fear was breathing and the extent to which the mask obscured my laryngectomy stoma (neck breathing)

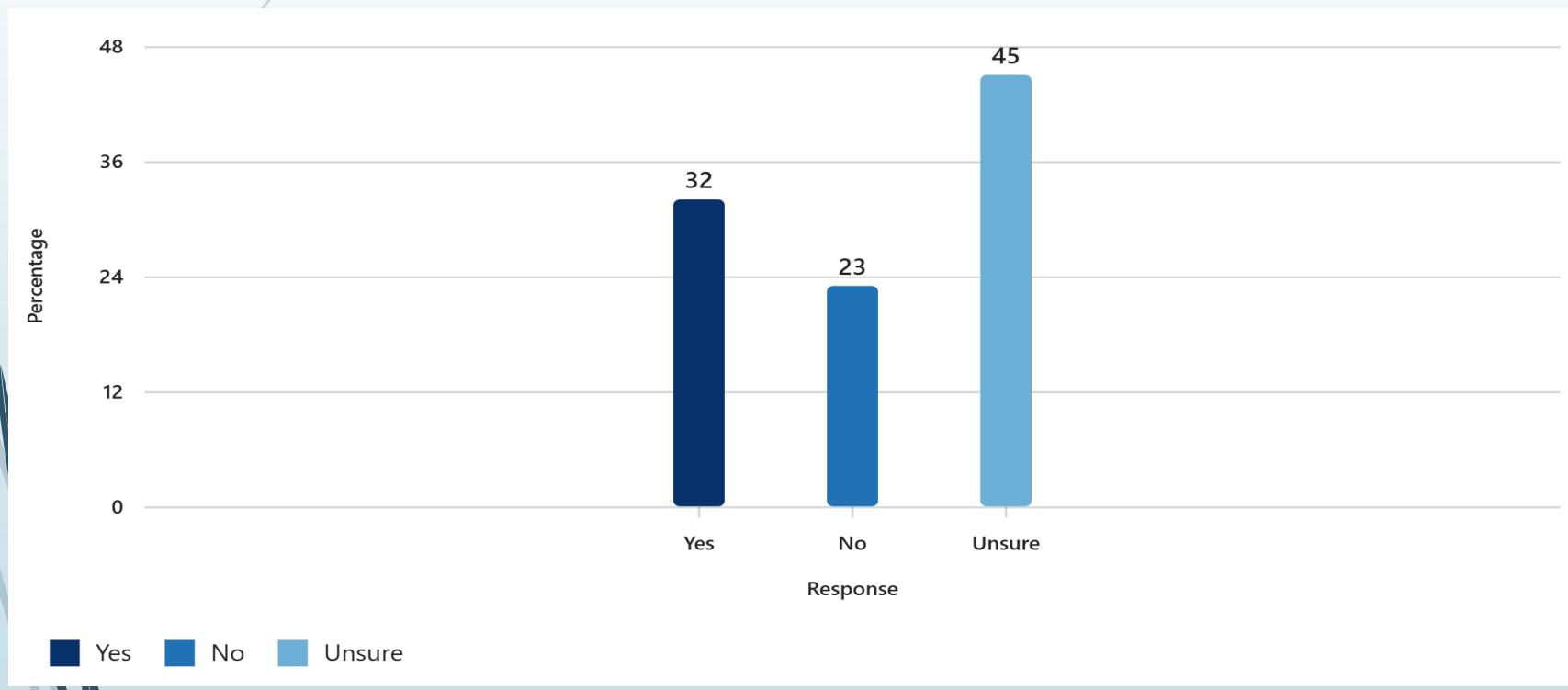
It was the feeling of being restricted especially when my mouth was so dry from the radiotherapy and the fear of coughing. It felt very restricted

My fear of vomiting into the mask was very significant so an open one would remove that

The mask was very tight, and chafed the skin, also the area across the shoulders suppressed my capacity to fill my lungs.

For me personally an open face mask would have not been an issue, I certainly would not have had to take a sedative before treatment. The treatment becomes exhausting and challenging so suffering from claustrophobia and having your whole face covered just adds extra trauma

If you knew that open face mask radiotherapy was available in another centre, would you have asked your Doctor / Nurse if you could have it?



Average **19.5**
EXTRA Miles
for treatment
with an open
face mask

Additional comments

1. Mask Experience and Preferences

- **Mixed feelings about mask type:** Some patients preferred open-face masks for comfort and reduced claustrophobia, while others felt full masks provided security.
- **Claustrophobia concerns:** Full-face masks were particularly challenging for claustrophobic patients.
- **Comfort issues:** Tightness around shoulders and neck, especially when weight changes occurred during treatment, caused discomfort and breathing difficulties.

2. Psychological Coping

- **Initial fear and anxiety:** Many patients described the experience as terrifying at first but learned coping strategies (e.g., counting breaths, sedatives).
- **Trust in staff:** Confidence in radiotherapy staff and their reassurance significantly reduced anxiety.
- **Acceptance over time:** Several patients reported adapting and tolerating the mask as treatment progressed.

3. Importance of Preparation and Information

- **Need for pre-treatment orientation:** Patients suggested walkthroughs, videos, and mask demonstrations before fitting to reduce fear.
- **Clear explanations:** Understanding why masks are necessary and how they work helped alleviate apprehension.

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Additional comments

4. Role of Staff

- **Staff quality matters:** Positive interactions with radiotherapy teams were repeatedly cited as crucial for coping.

5. Physical Challenges

- **Medical complications:** Issues like mucous buildup, swallowing difficulties, and PEG-related pain made lying down and wearing the mask harder.
- **Skin irritation:** Burning skin and mask pressure added discomfort.

6. Travel and Logistics

- **Travel burden:** Daily travel was stressful, especially for rural patients. Some would consider longer travel for open face masks only if accommodation was provided.

7. Suggestions for Improvement

- More personalized masks to avoid pressure on sensitive areas.
- Open-face mask options for those who dislike being fully enclosed

Conclusion

- ▶ There was a consensus for immobilisation options and patients indicated their preferred option would be the chin strap and then the open face mask head and shoulders.
- ▶ A positive result shown is that patients are not in pain during treatment. However, the number of patients that required support, including medication shows that this is an area that can be improved.

Further development

- ▶ Further work to consider the emotional and psychological impact of being on treatment versus post treatment and how has this affected the responses that have been collected.





Thank you for listening

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