

RESEARCH

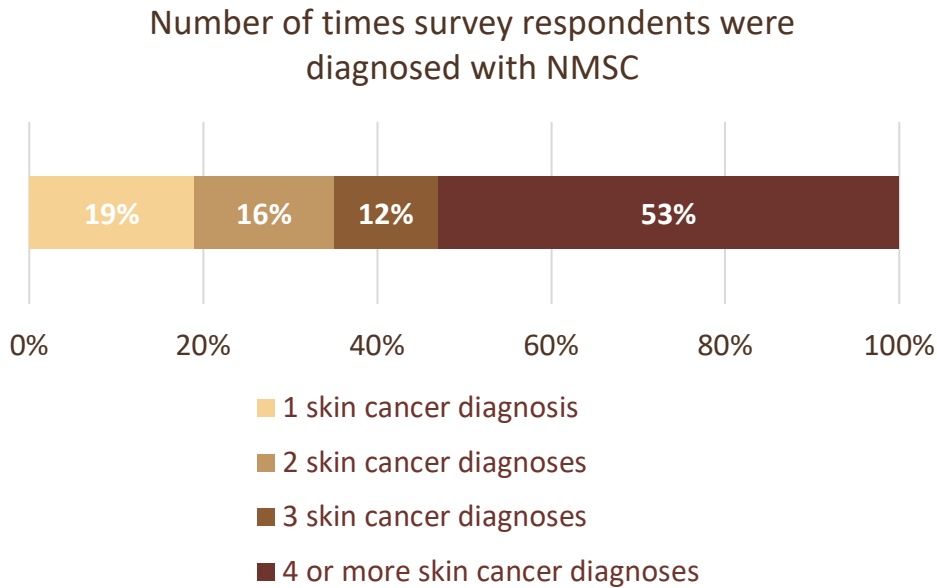
The non-Melanoma skin cancer patient experience - side effects, informed consent, and patient satisfaction: a comparison across treatment options.

- Abstract** 5,536 people receiving treatment for non-melanoma skin cancer were asked about their treatment experience and indicated the types of treatment received. Respondents were asked to report the side effects experienced and were asked whether those side effects were discussed prior to treatment. Respondents were also asked whether other treatment options were discussed prior to treatment. Fully informed consent is achieved when a medical professional discusses all applicable treatment options and the potential side effects with the patient. Patients treated with Mohs reported receiving Fully Informed Consent 20% of the time. Patients treated with IGSRT were three times more likely to report receiving Fully Informed Consent (77% of the time).
- Background** Informal conversations with patients facing a non-melanoma skin cancer challenge suggest that, upon diagnosis, patients are not always fully informed. First, in many instances, we heard that only one treatment option was discussed, leaving the patient with no choice as to the treatment modality. Second, many patients reported not being made aware of the possibility of the side effects they ultimately experienced. The Dermatology Association of Radiation Therapy wished to explore whether the issues surrounding fully informed consent were ubiquitous across all treatment modalities or specific to one modality.
- Methods** A survey was developed and administered through Survey Monkey. The survey was promoted via email lists, social media, and links on the patient-oriented skin cancer treatment education website, GentleCure.com. The majority of responses came through GentleCure.com.
- Limitations** GentleCure.com primarily attracts individuals exploring alternatives to Mohs surgery. Because the majority of respondents flowed through the website, they may not be entirely representative of the 4.6 million Americans diagnosed each year with non-melanoma skin cancer (NMSC). The survey consistently investigated respondents' experience with various treatment options without randomizing the order in which Surgery, Radiation Therapy, and Other Treatment Options were presented.
- Conflicts** The author is employed by SkinCure Oncology, a company that derives revenue by assisting dermatology practices in the deployment and usage of Image-Guided SRT.
- Keywords** Non-Melanoma; Skin Cancer; Side effects of skin cancer treatment; informed consent; patient satisfaction; Mohs; SRT; Superficial Radiation Therapy.

Population

Of 5,536 people starting the survey, 4,868 indicated that they experienced a skin cancer diagnosis one time or more.

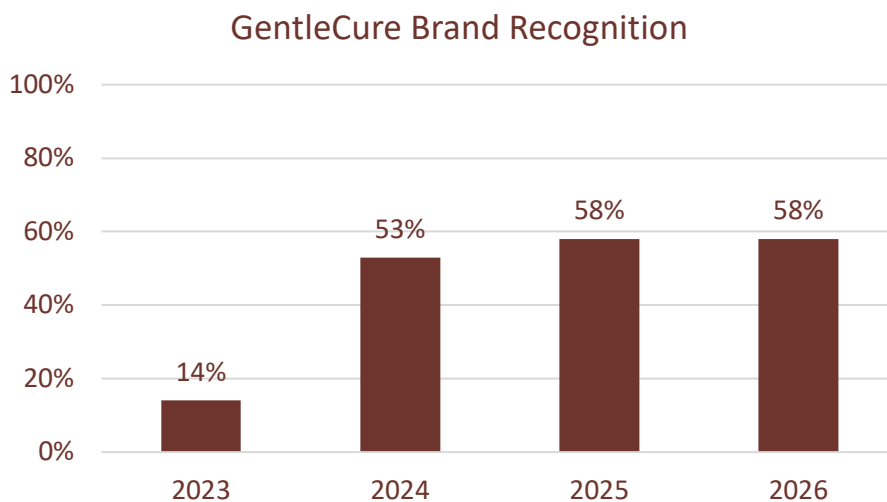
Number of Skin Cancer Diagnoses



More than half of all respondents (53%) have been diagnosed with non-melanoma skin cancer on four or more occasions.

Brand Recognition

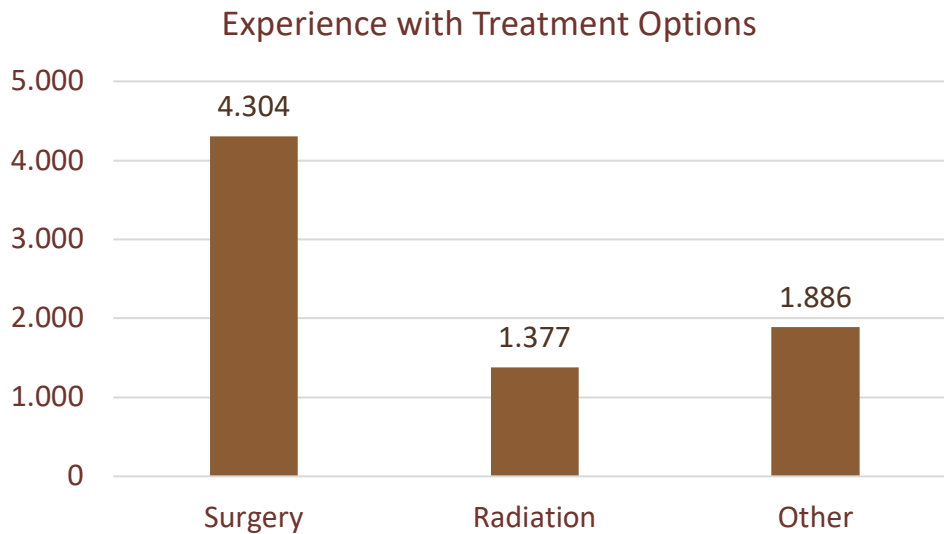
Given that a significant number of survey respondents were driven to the survey through the GentleCure.com website or GentleCure social media, respondents were asked: "Prior to taking this survey, have you ever heard about GentleCure Image-Guided SRT?"



79% of respondents took the survey in 2023, when GentleCure awareness was only 14%.

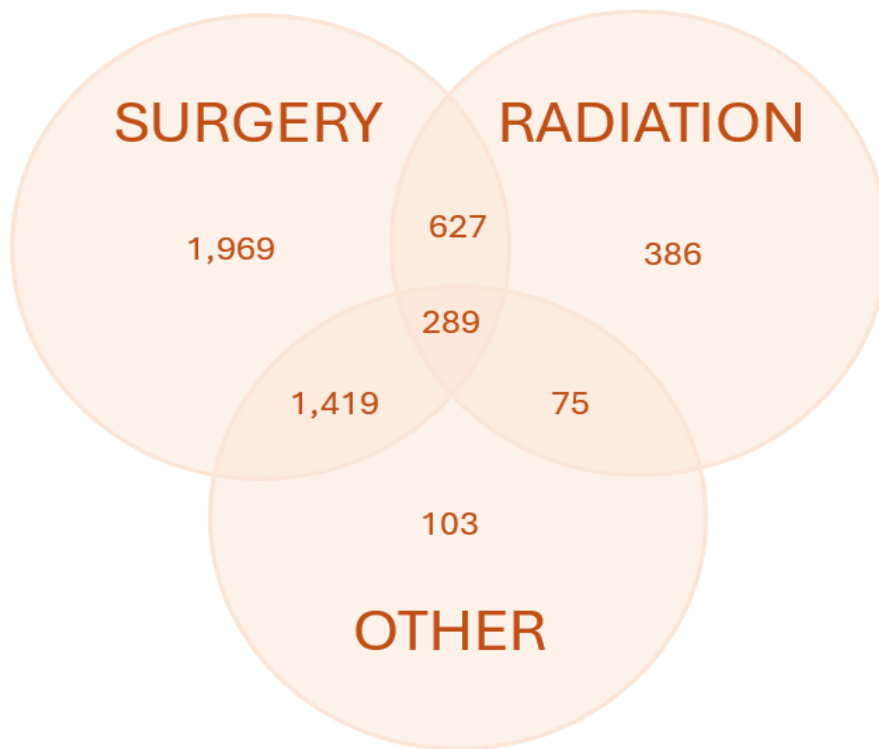
Awareness of GentleCure has grown significantly over the past few years, but survey responses primarily date to a period before high awareness.

Treatment Received



Experience with Treatment Options

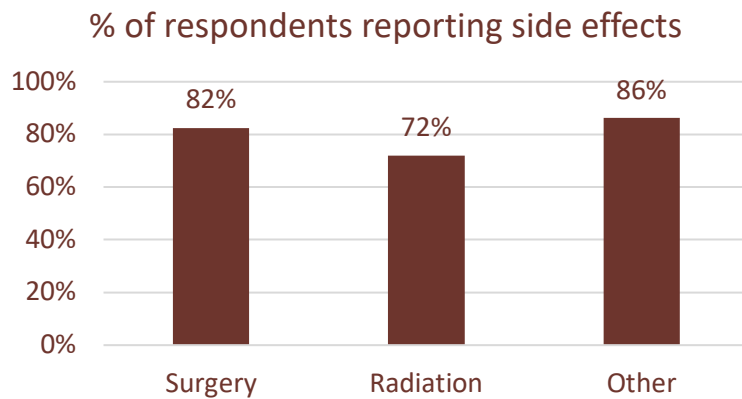
Of the 4,868 survey respondents with skin cancer, 4,304 (88%) had one or more experiences with surgery, 1,377 (28%) had one or more experiences with radiation therapy, and 1,886 (39%) had one or more experiences with other options.



Experience with Treatment Options

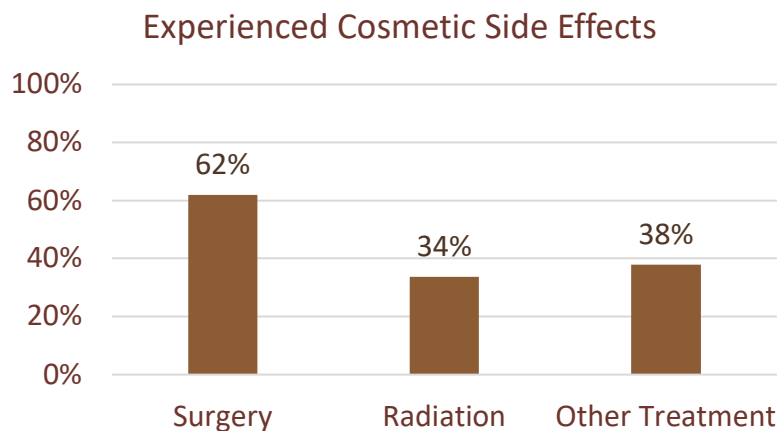
Of the 4,868 respondents with skin cancer, 289 or 6% have experienced all three treatment modalities. Of the 4,304 respondents with surgical experience, 627 or 13% also had experience with radiation therapy and 1,419 or 29% also had experience with other treatment modalities. Of the 1,377 respondents with radiation therapy experience, 75 or 2% had experience with other treatment modalities.

Side Effects Experienced



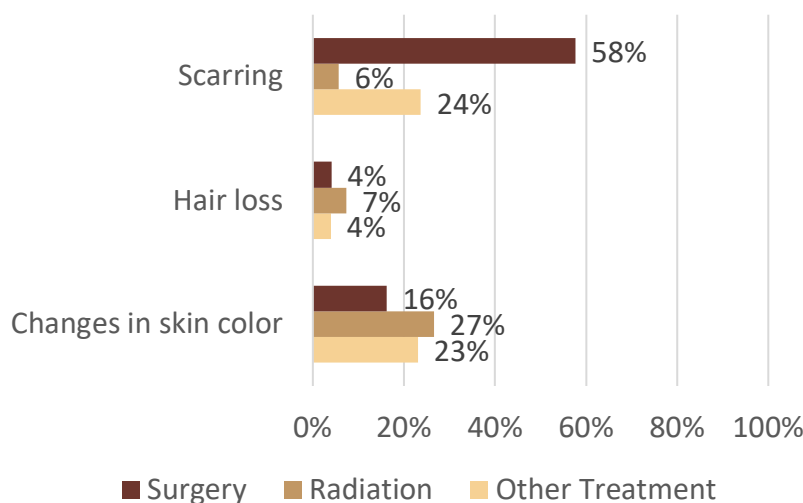
81%+ of patients experienced side effects

Radiation therapy produced fewer side effects than surgical intervention or other treatment options. Across all modalities, more than 7 out of 10 patients reported at least one treatment-related side effect. Side effects, however, varied considerably by treatment type.



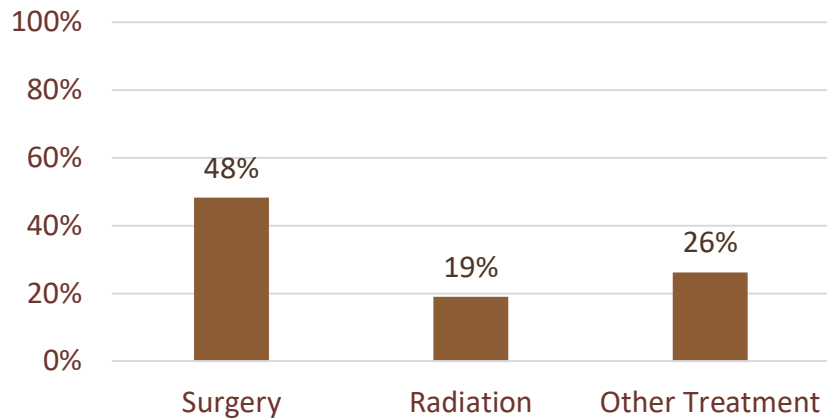
Side Effects - Cosmesis

62% of patients undergoing surgery reported cosmetic side effects, compared to 34% of those treated with radiation therapy and 38% who received other treatment options.



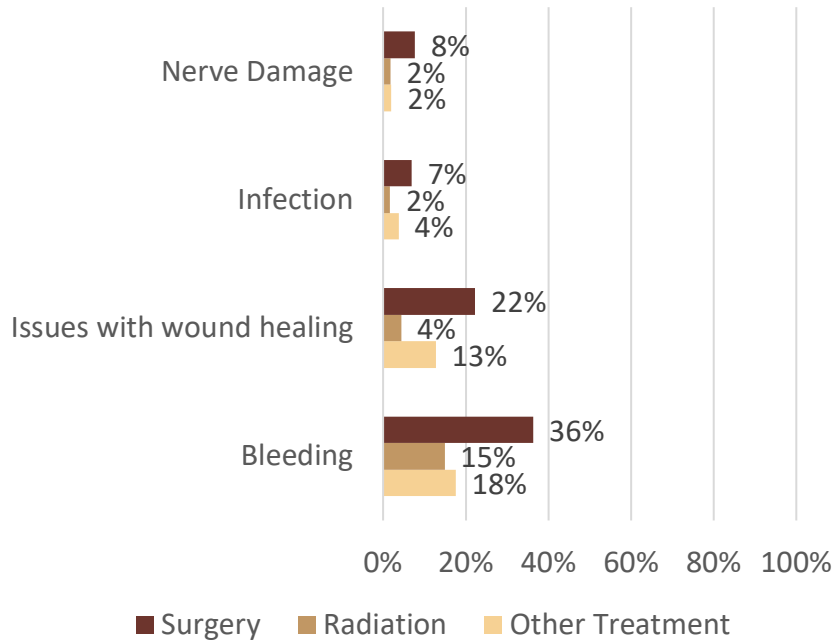
Surgery was more likely to result in scarring (58% vs 6% for radiation therapy), while radiation therapy was more likely to result in changes in skin color (27% vs 16% for surgery).

Experienced Medical Side Effects



Side Effects – Medical Conditions

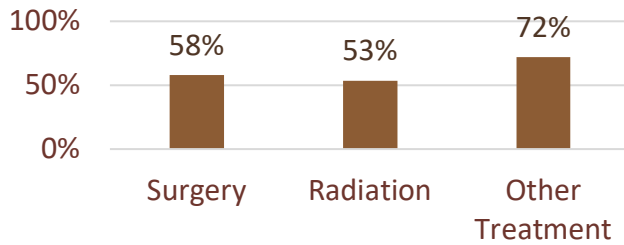
48% of patients undergoing surgery reported medical side effects, compared to 19% of those treated with radiation therapy, and 26% who received other treatment options.



Surgery was more likely to result in medical issues like bleeding, wound healing, infection, and nerve damage.

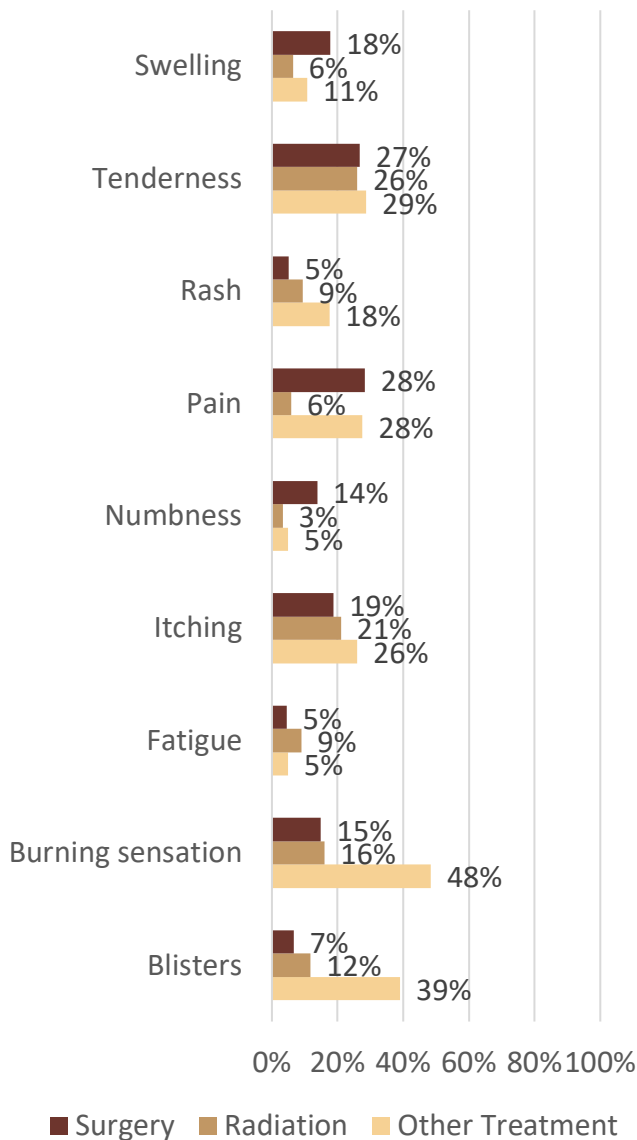
Most significant was wound healing, where those undergoing surgery were almost 5 times more likely to experience treatment-related issues.

Side Effects - Discomfort



Side Effects – Discomfort

More than half of the patients surveyed reported uncomfortable side effects. Other treatment options were more likely to cause discomfort than surgery or radiation therapy. It's important to note, however, that this survey did not distinguish between level of discomfort.



Some measures of discomfort were relatively consistent across treatment modalities. For example, tenderness was experienced by 26% to 29% of patients regardless of treatment modality.

Measures that varied considerably included:

Swelling: experienced by 18% of surgical patients vs. 6% of those receiving radiation therapy.

Pain: experienced by 28% of surgical patients but only 6% of those treated with radiation.

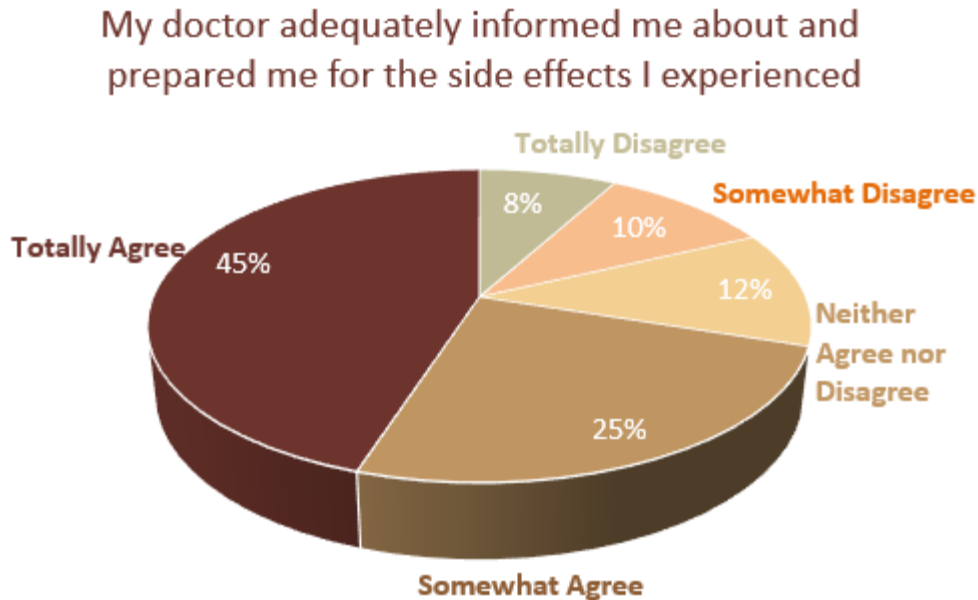
Numbness: experienced by 14% of surgical patients but only 3% of those treated with radiation.

Burning sensation: experienced by 48% of those treated with topicals but only 16% of those treated with radiation.

Blisters: experienced by 39% of those treated with topicals but only 7% of surgical patients.

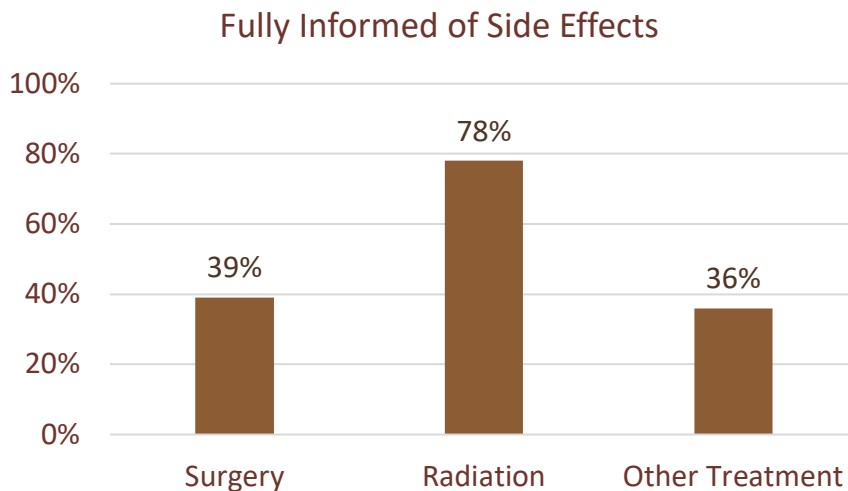
Informed Consent – Side Effects

Survey respondents were asked to respond to the statement “Prior to surgery, my doctor adequately informed me about and prepared me for the side effects I experienced during and after surgery.”



45% of patients reported being fully informed about the side effects they ultimately experienced.

As shown in the chart below, the level of informed consent varied significantly by treatment received.

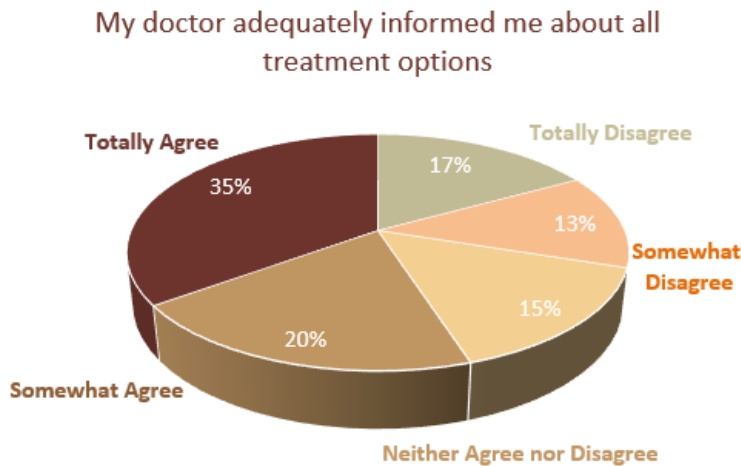


Were patients, prior to treatment, fully informed of side effects?

78% of patients receiving radiation therapy reported being fully informed of the side effects they experienced, compared with only 39% of patients receiving surgery and 36% of patients receiving another therapy.

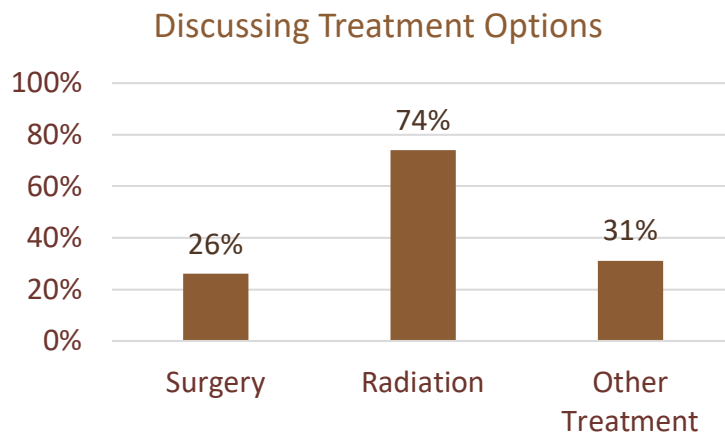
Informed Consent – Discussing All Treatment Options

Survey respondents were asked to respond to the statement “my doctor worked with me as a partner in my health, where we decided together which treatment option would be best for me, including alternative treatment options or no treatment.”



Only one in three patients (35%) said their doctor reviewed all treatment options before administering treatment.

As shown in the chart below, the level of informed consent varied significantly by treatment received.

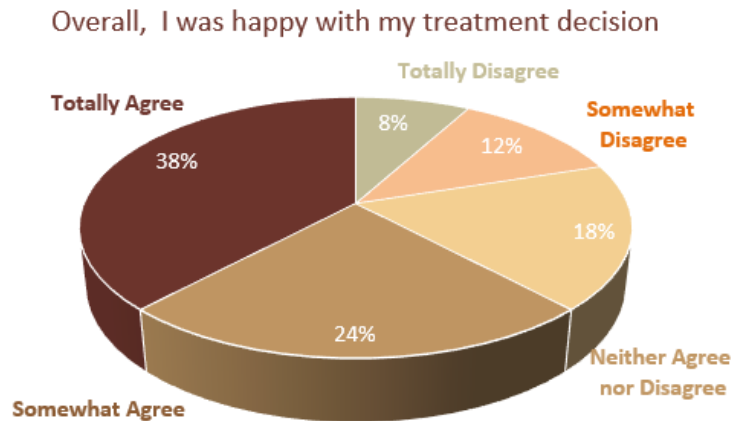


Were patients, prior to treatment, fully informed of all potential treatment options?

74% of patients receiving radiation therapy reported being fully informed about all treatment options, compared with only 26% of patients receiving surgery and 31% of patients receiving some other therapy.

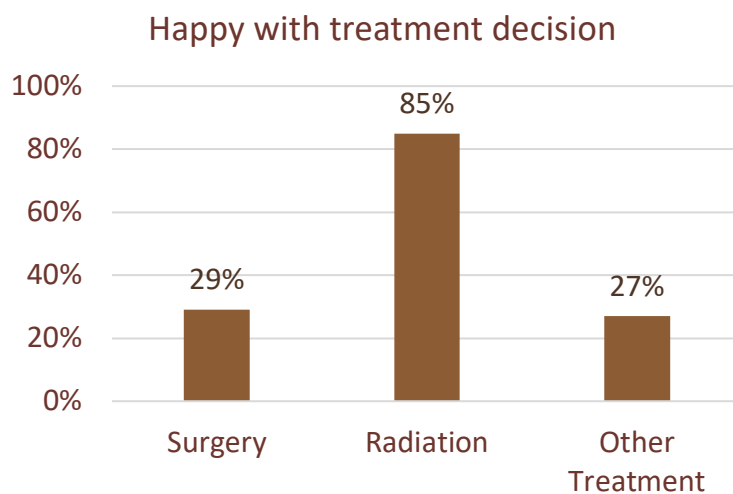
Patient Satisfaction – Happy with the treatment decision

Survey respondents were asked to respond to the statement “Overall, I was happy with my decision [to get the treatment option I ultimately received].”



Slightly more than one in three patients (38%) said they were totally happy with their treatment decision.

As shown in the chart below, the level of happiness with the treatment decision varied significantly by treatment received.

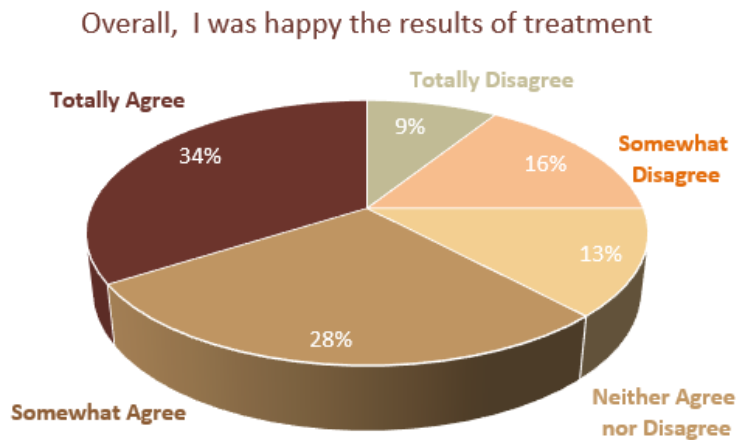


Were patients happy with their treatment decision?

Patients receiving radiation therapy were more than twice as likely to be happy with their treatment decision as those choosing surgery or some other treatment option.

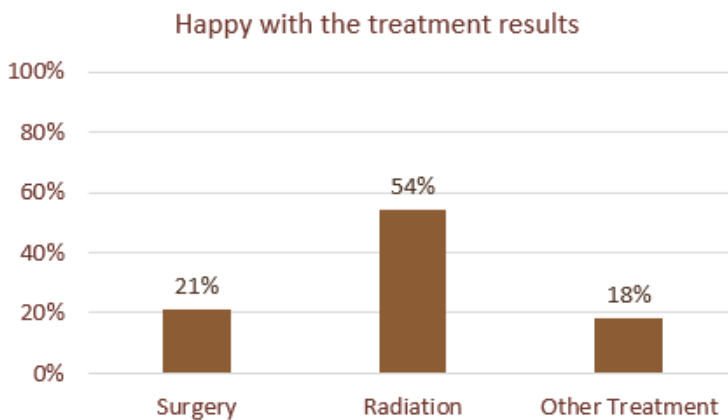
Patient Satisfaction – Happy with treatment results.

Survey respondents were asked to respond to the statement “Overall, I was happy with the results of [the treatment], both immediately after [the treatment] and once healed.”



Only one in three patients (34%) said they were totally happy with the results of their treatment.

As shown in the chart below, the level of happiness with the treatment results varied significantly by treatment received.

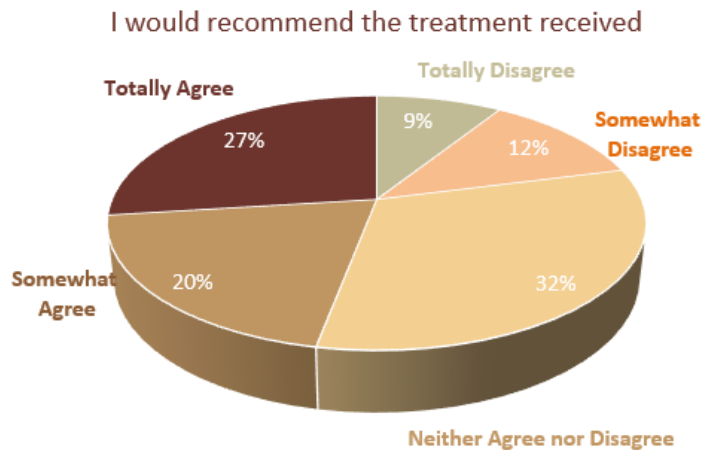


Were patients happy with the results of their treatment?

Patients receiving radiation therapy were more than twice as likely to be satisfied with the results of treatment compared to those choosing surgery or another treatment option.

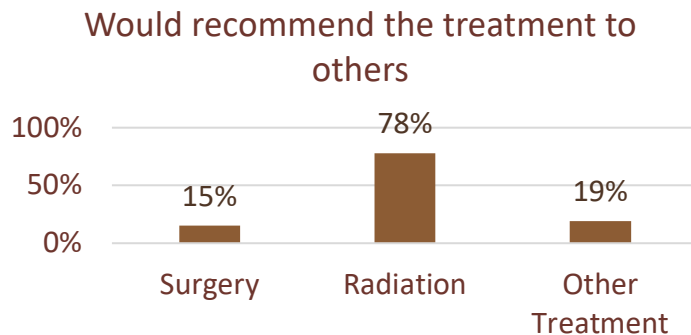
Patient Satisfaction – Would recommend the treatment to others.

Survey respondents were asked to respond to the statement “If a friend or loved one had a skin cancer diagnosis, I would recommend [the same treatment option I received].”



One in four patients (27%) said they would definitely recommend the treatment option they received.

As shown in the chart below, the likelihood of recommending the treatment option received varied significantly by treatment.

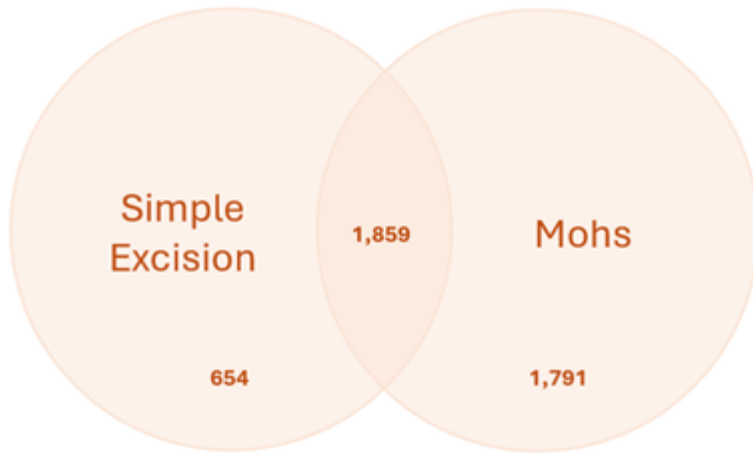


Would patients recommend to others the treatment they received?

Patients receiving radiation therapy were more than five times as likely to recommend the treatment option they received as those receiving surgery or some other therapy.

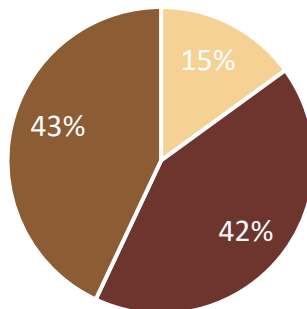
A CLOSER LOOK AT SURGICAL SOLUTIONS

Survey results reflect input from 4,304 patients receiving some form of surgery to treat their skin cancer.



Of the 4,304 surgical respondents, 1,859 or 43% have experienced both simple excision and Mohs.

Surgical Experience



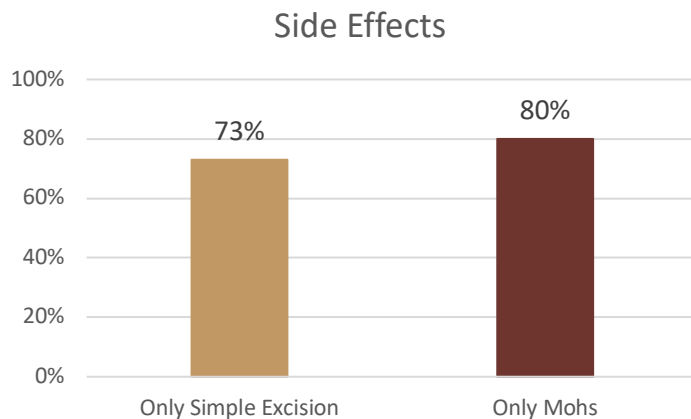
1,791 or 42% of respondents have experienced Mohs but not simple excision, while 654 or 15% experienced simple excision but not Mohs.

■ Only Simple Excision ■ Only Mohs ■ Both

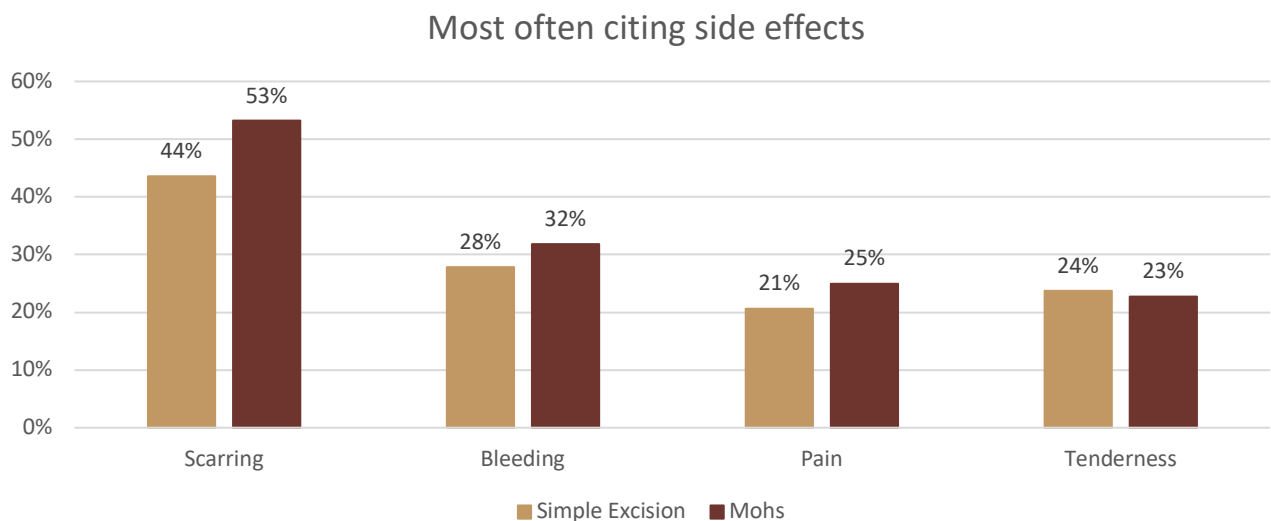
To compare respondents' experiences with simple excision vs. Mohs, we compared responses from those who experienced only simple excision (654 respondents) with those who experienced only Mohs (1,791 respondents). It's important to note that respondents were not asked to self-report the severity of their skin cancer, and it's likely that, overall, those experiencing Mohs were dealing with a greater severity of disease than those experiencing Simple Incision.

Side Effects: Simple Excision vs Mohs

While Mohs surgery was associated with a higher incidence of reported side effects, this study did not adjust for tumor severity or lesion complexity. Given that Mohs is preferred for higher-risk cases, these findings should be interpreted in light of potential case-mix differences.

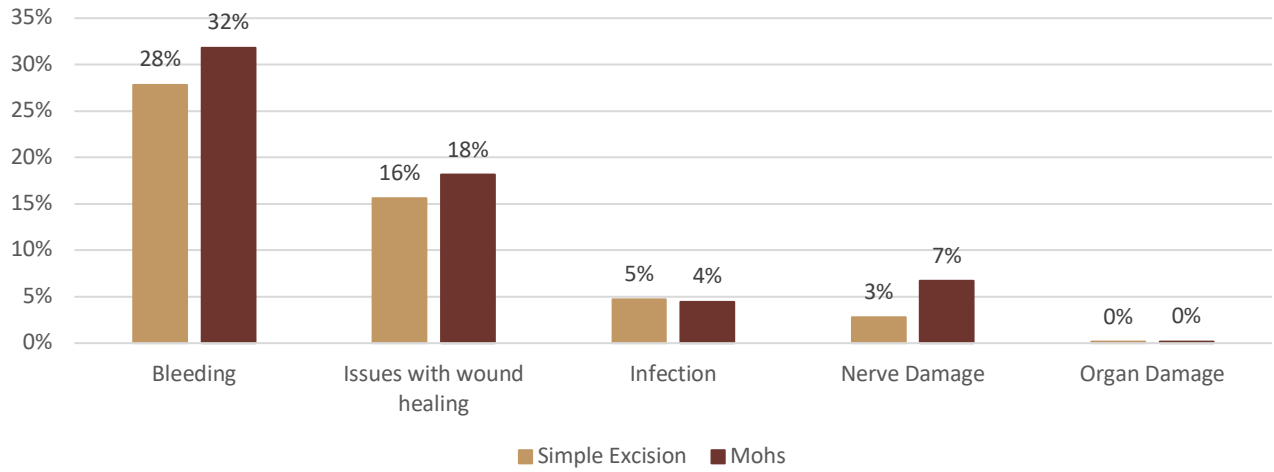


Most respondents who have undergone surgical removal of skin cancer reported experiencing side effects. Those treated with Mohs surgery were more likely to report side effects than those treated with Simple Excision.

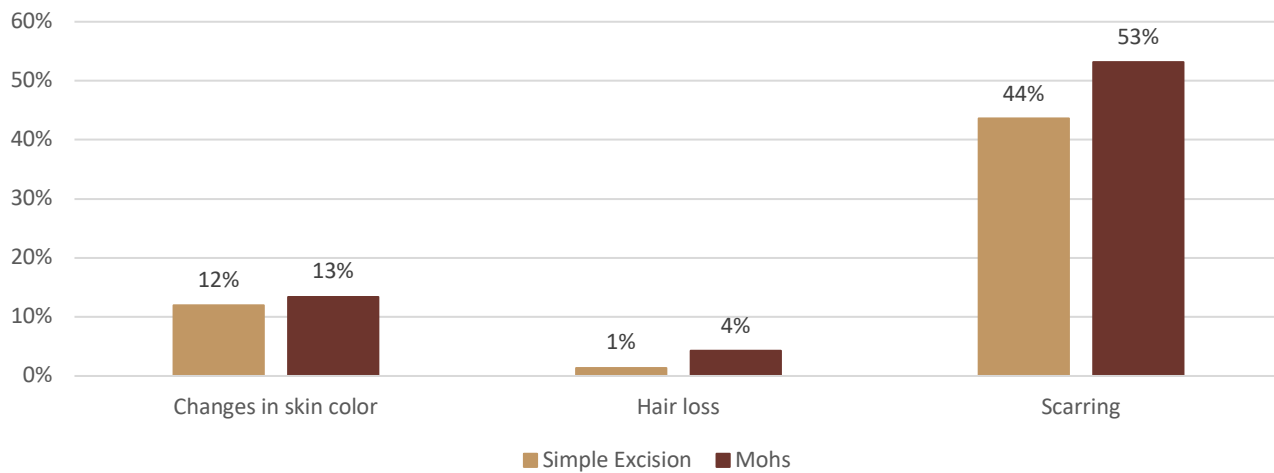


Among respondents treated with surgical intervention, the most often cited side effects were scarring, bleeding, pain, and tenderness.

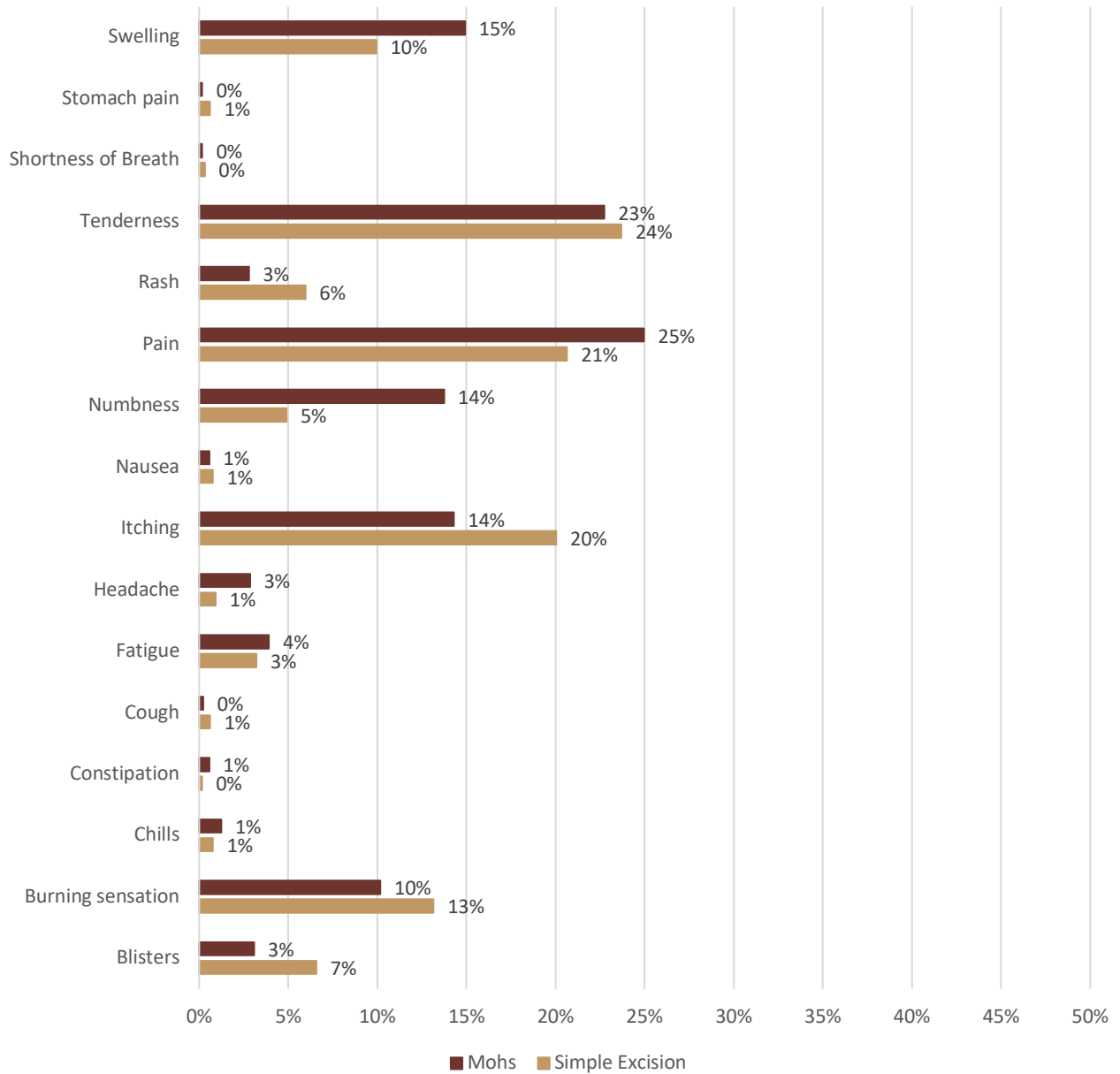
Side Effects - Medical Conditions



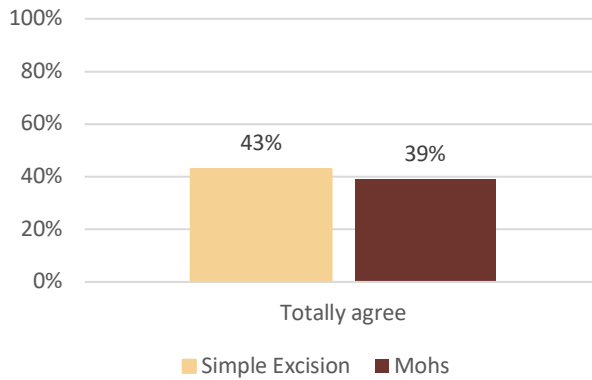
Side Effects - Cosmesis



Side Effects - Discomfort



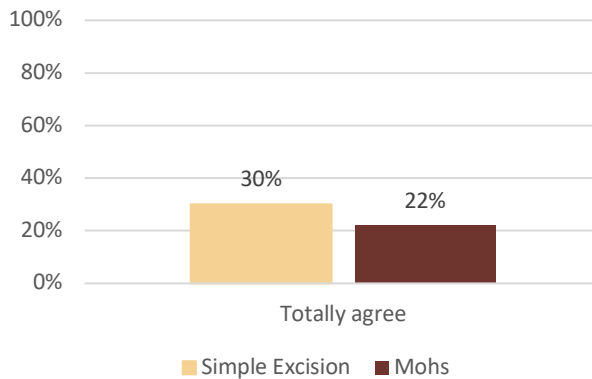
My doctor adequately informed me about potential side effects before surgery



Were patients, prior to surgery, fully informed of side effects?

Whether being prepped for simple excision or Mohs, only 4 out of 10 surgical patients report being fully informed of the side effects they eventually experienced. Those treated with Mohs were slightly less likely to be fully informed of side effects than were those treated with simple incision.

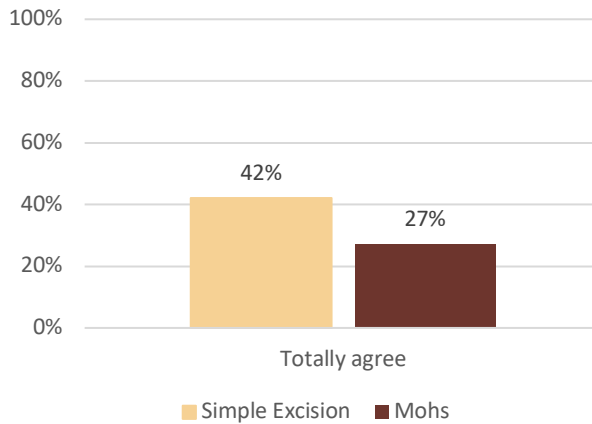
My doctor and I decided together which treatment option would be best for me



Were patients, prior to treatment, fully informed of all potential treatment options?

30% of patients undergoing simple excision reported being fully informed about all treatment options, compared to 22% of patients undergoing Mohs.

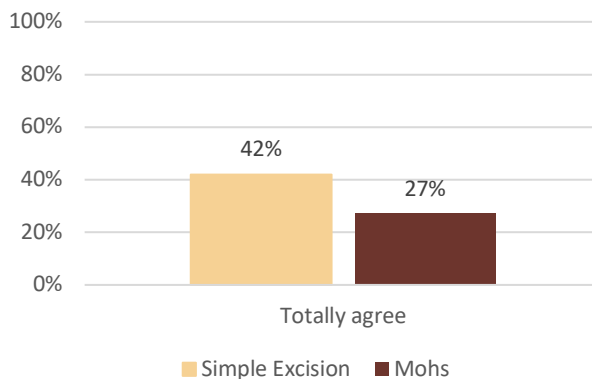
I was happy with my treatment decision



Were patients happy with their treatment decision?

One in three patients treated with simple incision were happy with their treatment decision compared to one in four patients treated with Mohs who were happy with their treatment decision.

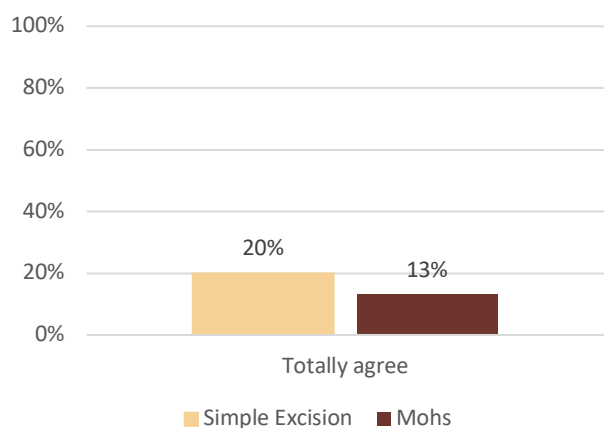
I was happy with the results both immediately after treatment and once healed.



Were patients happy with the results of their treatment?

Only 42% of those experiencing simple excision were happy with the results. For Mohs, the results were even worse – only 27% of those experiencing Mohs were happy with the results.

I would recommend the therapy I received



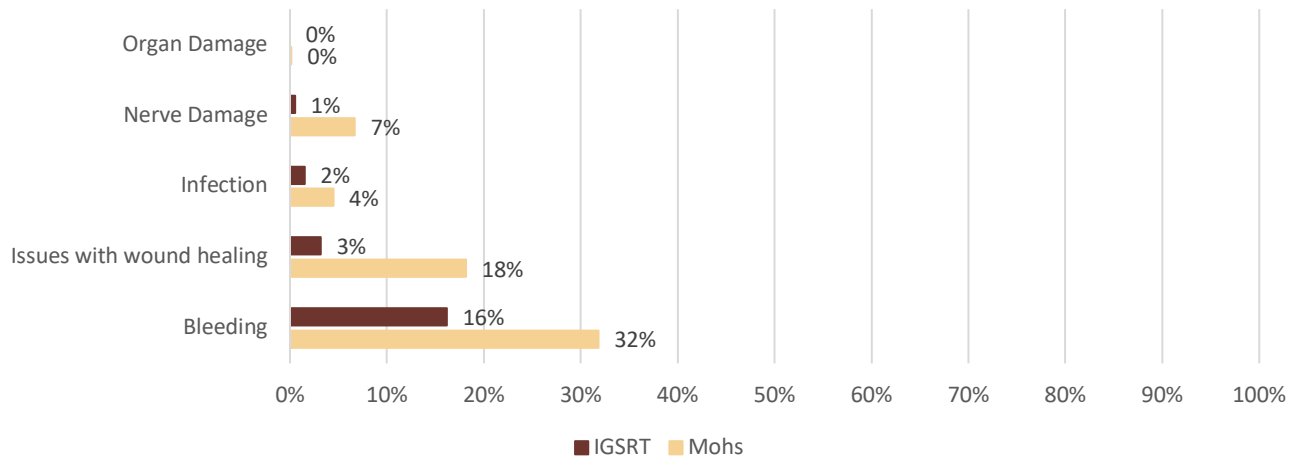
Would patients recommend the treatment they received to others?

Fewer than one in treated with Mohs surgery would recommend the procedure. Simple incision fared better, but still only one in five would recommend simple incision.

A COMPARISON OF MOHS AND IMAGE-GUIDED SUPERFICIAL RADIATION THERAPY (IGSRT)

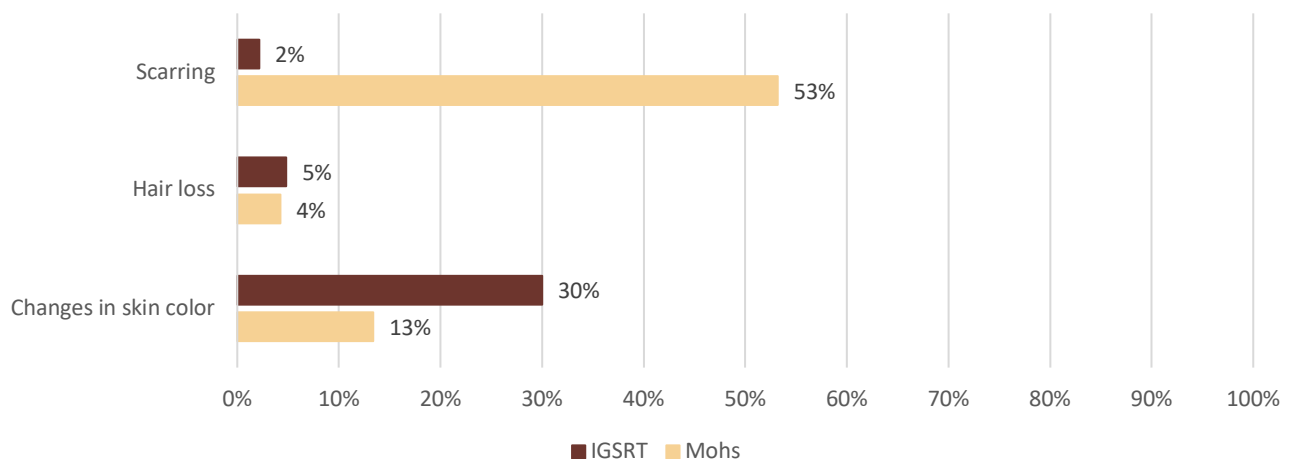
Survey results reflect input from 1,791 patients whose only surgical experience was Mohs and 600 patients whose only radiation-based experience was IGSRT. 80% of Mohs patients reported one or more side effects, compared to 70% of patients receiving IGSRT.

Side Effects - Medical Conditions



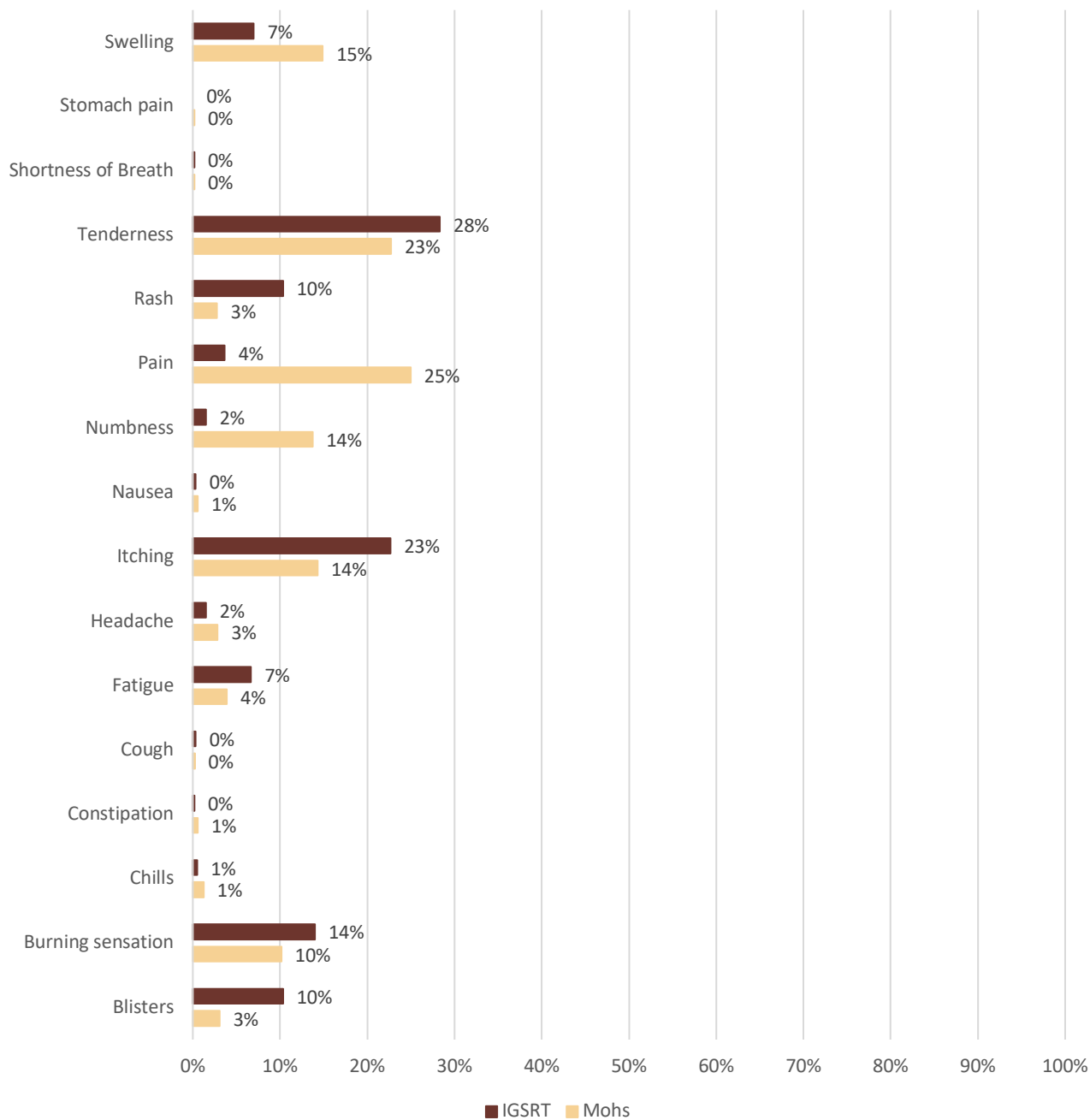
Mohs patients were twice as likely to experience bleeding and were 6-times more likely to experience issues with wound healing.

Side Effects - Cosmetic Issues



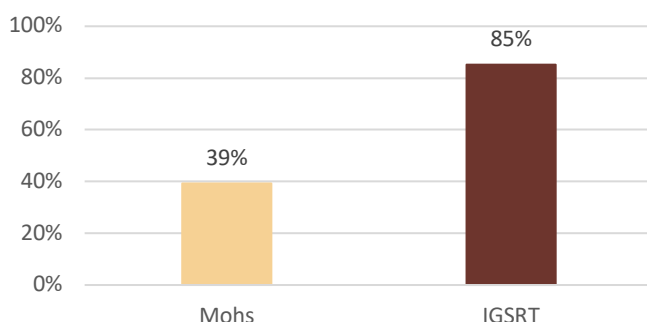
More than 50% of Mohs patients reported issues related to scarring versus just 2% of those treated with IGSRT. Almost one in three patients receiving IGSRT reported changes in skin tone compared to 13% of those treated with Mohs.

Side Effects - Discomfort



Rashes, burning sensations, tenderness, and Itching were more often associated with IGSRT.
Pain, swelling, and numbness were more often associated with Mohs.
Patients treated with Mohs were 6 times more likely to experience pain.

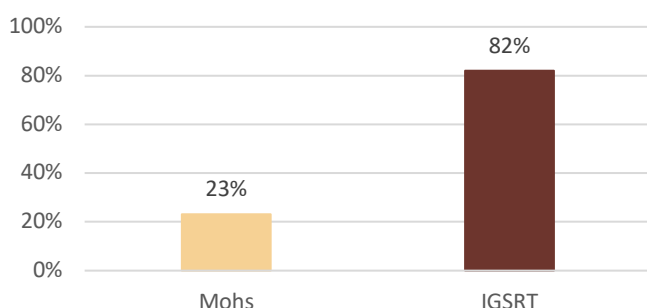
Fully Informed Consent - Side Effects



Were patients, prior to treatment, fully informed of side effects?

85% of patients receiving IGSRT reported being fully informed of potential side effects, compared to only 39% of patients receiving Mohs.

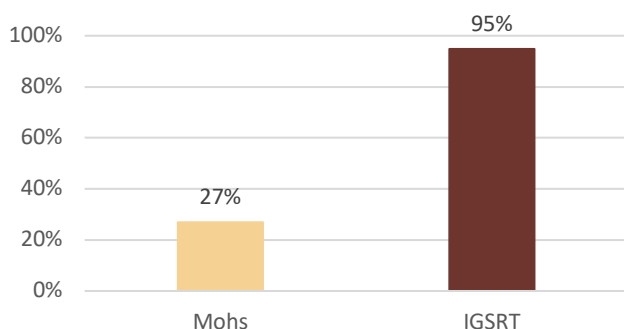
Fully Informed Consent - Treatment Options



Were patients, prior to treatment, fully informed of all potential treatment options?

Only 23% of patients receiving Mohs report being told about other treatment options prior to treatment. Patients receiving IGSRT were almost four times more likely to be informed about other treatment options prior to treatment.

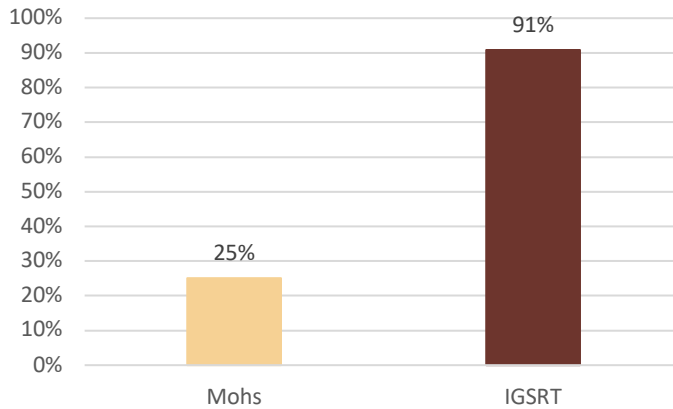
Happy with Treatment Decision



Were patients happy with their treatment decision?

95% of patients treated with IGSRT were completely satisfied with their treatment decision, compared to only 27% of those treated with Mohs.

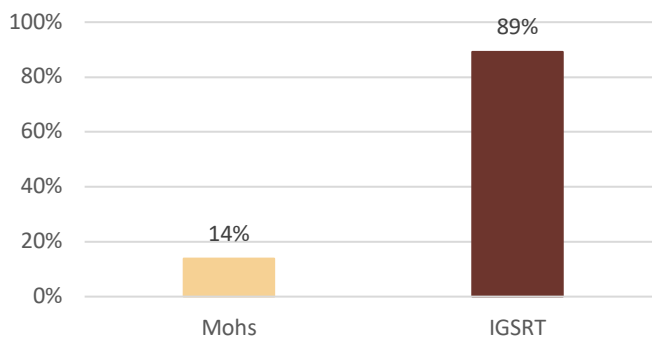
Happy with the results



Were patients happy with the results of their treatment?

Only 25% of those who underwent Mohs surgery were completely satisfied with the results. 91% of those treated with IGSRT were totally happy with the results.

Would recommend

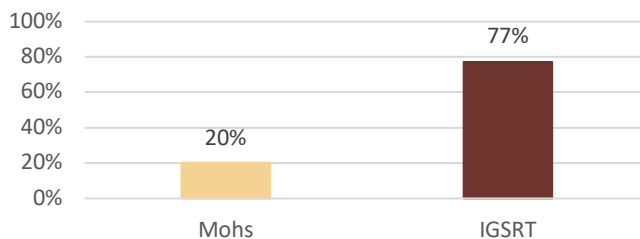


Would patients recommend the treatment they received to others?

Only 14% of those who experienced Mohs surgery totally agreed that they would recommend the procedure to others.

89% of those who experienced IGSRT strongly agreed that they would recommend the procedure to others.

Fully Informed Consent Both options and side effects discussed



Did patients receive Fully Informed Consent?

Fully informed consent is achieved when a medical professional discusses all applicable treatment options AND the potential side effects with the patient. 77% of IGSRT patients received fully informed consent, compared with 20% of Mohs patients.