Research report on

the

ATLANTOtec®

Patient survey

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INKAM

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Agenda

1 Abstract

The *ATLANTOtec*® method is a special massage technique for correcting an atlas malposition. In order to be able to record changes in the patient's complaints due to a performed *ATLANTOtec*® treatment in a statistically secured manner, two *ATLANTOtec*® practices from Switzerland and Sweden conducted patient surveys in 2008 and 2009.

The interviews were conducted with the help of a standardised questionnaire, which was presented to the patients immediately before and about one month after the treatment on the occasion of a control session. The questionnaire contained 18 predefined complaint fields (e.g. neck, shoulder, back and knee complaints as well as headaches, sleep disorders and migraines) and the patients had the task of indicating their respective complaint status before and after the treatment in the dimensions of frequency and severity of the complaints on a 7-point rating scale (without verbal anchoring of the scale levels).

The questionnaires were collected and statistically analysed by the scientific institute INKAM (Institut für Kundenzufrie- denheits-Analysen und Marketing Prof. Dr. Theis GmbH, Marburg). A total of 504 persons, 297 women and 207 men, all between the ages of 16 and 84, took part in the survey. The degree of accuracy of the survey results is +/- 4.45% (degree of certainty 95.5%).

In summary, the following findings were obtained from the study:

- Very few patients came for treatment for only one or two reasons. As a rule, 10 or more areas of complaint were given.

- 74% of all patients were free of symptoms in at least one area of discomfort one month after treatment.

- From the point of view of complete pain relief, the treatment achieved the greatest success with **migraine patients**: 39% of all those questioned were free of complaints (one month) after the atlas correction, for a further 43% there was relief in the frequency and/or severity of the complaints.

- Over 85% of all patients surveyed stated that they were free of complaints or at least had noticed a reduction in the frequency and/or severity of complaints in the following areas around one month after *ATLANTOtec*® treatment: **Neck complaints, headaches and tension**.

- At least 7 out of 10 patients surveyed stated that they were free of complaints or had at least noticed an alleviation in the frequency and/or severity of complaints for the following areas after *ATLANTOtec*® treatment: Shoulder complaints, dizziness, migraine, lower back complaints, fatigue, hip complaints, sleep complaints, tinnitus, depression and gastrointestinal complaints.

The results of the study are available in three versions of different length: Research report (130 pages), research report - abridged version (43 pages), results report (1 page).

2 Brief description of the *ATLANTOtec® method*.*

For some time now, manual therapists have recognised that many health problems can be caused by an incorrectly aligned cervical spine. In many cases, this is caused by a misalignment of the first cervical vertebra, the so-called atlas.

With the help of the *ATLANTOtec®* method, the atlas malposition is corrected. The procedure consists of applying a special massage technique to the short deep neck muscles, followed by stretching of specific muscles connected to the atlas. The aim here is to release the muscles that clasp the first cervical vertebra to allow it to return to the anatomically-physiologically correct position.

The treatment uses a specially designed device that pulses and vibrates at a specific frequency and can be adjusted according to muscle consistency and tone. This device enables relaxation of the deepest muscle layers, which could never be achieved with a manual massage.

After the (one-off) treatment (duration approx. 80 minutes), the body is given a regeneration period of about one month to adapt to the new situation. During a subsequent check-up session (duration approx. 60 minutes), the position of the atlas vertebra is checked and, if necessary, corrected if it is not yet perfectly in place.

The *ATLANTOtec®* method clearly differs from other therapies such as atlaslogy, vitalogy, atlas therapy according to Arlen or atlas orthogonal. There are no chiropractic movements with jerky turns of the head, nor are there any sudden movements. The focus is rather on a deep massage of the neck and back muscles with a specially designed device.

Source: www.atlantotec.com

3   Research design

3.1   Objectives and methodology of the survey

In 2008 and 2009, two *ATLANTOtec*® practices from Switzerland and Sweden conducted a patient survey. The basic aim of the survey was to record changes in patients' complaints as a result of *ATLANTOtec*® treatment.

Specifically, the survey aimed to find out:

- With what complaints do the patients come for treatment?

- For which complaints were the patients able to determine a treatment success? For which complaints is the *ATLANTOtec*® treatment most suitable?

- How has the frequency and severity of the complaints changed as a result of the *ATLANTOtec*® treatment?

From a methodological point of view, the survey is a

- **Before and after examination**: During the period mentioned above, all patients were given a questionnaire before the treatment in which they were asked to record their personal field of complaints in terms of frequency and severity. 18 different complaints were listed. In addition, they were given the opportunity to name their complaints freely. Furthermore, the interviewees were asked to indicate how long it had taken for the symptoms to improve since the treatment and to state their age. On the occasion of the control session, which took place about one month later, the questionnaire was handed out to them again with the request to enter the current complaint status.

- **Sample survey**: The survey was conducted in 2008/09 among all patients who were undergoing treatment at that time and who consented to the survey. The object of the study (population) was therefore "all patients in the study period". Although this did not pose a selection problem (selection of respondents from all *ATLANTOtec*® customers), it cannot be called a complete survey. After all, the focus is not on "all patients who were treated with the *ATLANTOtec*® method".

- **Survey participants:**: A total of 504 questionnaires could be evaluated. Of all respondents, 297 were female and 207 male. The age of the respondents ranged from 16 to 84 years.

3.2 Reliability of the examination results

Objectivity: The questionnaires were filled out by the patients themselves before and after treatment. Consequently, the measurement results are independent of personnel (in contrast to a personal interview, in which the interviewer has basic possibilities of influence). Furthermore, the client assured that all answered questionnaires were passed on to the Institute without exception and that no prior selection took place. Under these conditions, the study is objective.

Reliability: The data evaluation is based on the fact that questionnaires were distributed to all patients over a defined period of time (1.1.2008 to 31.12.2009) by two *ATLANTOtec®* practices. From a methodological point of view, this is a partial survey (random sample survey; not all practice patients - all *ATLANTOtec®* customers - were asked). However, since it can be assumed that the selection of survey participants associated with the defined time span does not have an effect on the survey result (the survey would most likely not come to a different result if the survey had been conducted in 2007/2008 instead of 2008/2009), the study can be considered reliable.

Closely related to the question of reliability is the question of the **degree of accuracy**: With a degree of certainty of 95.5% (error probability 4.5%) and a sample size of 504 questionnaires, a degree of accuracy (random error) of +/- 4.45% can be assumed. This means that the "true" (but unknown) value can deviate upwards or downwards by 4.45%. The level of the sampling error calculated in this way can be regarded as quite acceptable for the objective of the study. In the medium and long term, however, the patient survey should be continued so that the sampling error can be further reduced by increasing the number of respondents.

Validity: A measuring instrument is considered valid if it actually measures what it claims to measure. Consequently, validity is essentially dependent on which scales were used to record the characteristic values.

Changes in the complaint field are recorded in the *ATLANTOtec®* questionnaire as follows: The patient is asked twice to fill out ("his") questionnaire. The first time is before the first treatment and the second time is about 4 weeks after the treatment in connection with the follow-up.

He can enter his well-being before and after the treatment (in frequency and severity of the complaints) on two 7-step scales. The scale goes from left (green) to right (red) with increasing tendency. Neither the extreme points nor the individual levels are verbally anchored.

This two-stage approach on one and the same questionnaire proves to be useful from the following points of view:

In principle, the frequency of complaints could have been measured on a metric scale. For this purpose, verbal categories such as "annually, quarterly, monthly, weekly, daily" would have had to be introduced. Within the framework of the evaluation, these ordinal categories would have had to be converted into metric data (e.g. for monthly: 12 times a year). This approach would have had the advantage that the patient could have entered in two separate questionnaires,

that, for example, he had complaints "every day" before the treatment and after the treatment only "once a month". He would not need his pre-treatment assessment to specify how he felt after the treatment.

On the other hand, there is no such possibility for the severity of the complaint. Here it would only have been possible to introduce ordinal categories such as "very slight, slight, rather strong, strong, very strong, unbearable". However, due to the inter- and intra-individual differences in perception, these categories are neither stable over time nor comparable between people. Thus, pain can be perceived differently by one and the same person at different times. Furthermore, it is not uncommon that the same pain intensity is perceived as "strong" by one person and "very strong" by another. Consequently, there is no metric scale for determining pain intensity and a verbally supported ordinal scale seems unsuitable. If one wants to record the intensity of complaints before and after a treatment, one is therefore forced to switch to a two-stage survey with the help of an ordinal scale without verbal anchors and with direct time comparison. On this scale, the patient has the possibility to enter his or her individually perceived complaint intensity, his or her subjective burden of pain. In the second questionnaire session (after the treatment), the patient can then directly assess the extent to which his or her complaints have changed based on the before comparison value.

All in all, it can be seen that due to the (necessarily) missing verbal anchoring of the scale levels, it is absolutely necessary to conduct the before and after survey on one and the same questionnaire. The validity of the survey does not suffer from this. If two questionnaires were used, however, the validity would be questionable.

The validity of the survey can be increased by clearly marking the first answer boxes (in all questionnaires) as "No/no significant complaints" in future surveys. In addition, a category "No answer" should be introduced.

3.3 Interpretation of the frequency/strength scale

The scale used in the questionnaire does not have any verbal support for the respondents. However, the coloured area running from green to red above the checkboxes and the colouring of the boxes themselves (2x green, 3x yellow, 2x red) shows the respondents that frequency and intensity increase from left to right.

If a respondent has no complaints before treatment or no complaints after treatment, he or she should - this is the intention of the questionnaire developer - tick the first box. This necessity is pointed out in about half of the questionnaires. In the other half, this necessity does not result from a corresponding instruction in the questionnaire (a note: "If you have no complaints, tick the first box" does not exist) but from the overall context: On the one hand, there is no separate possibility to tick "no complaints", on the other hand, the respondent is requested in the questionnaire to fill out the questionnaire completely and is thus forced to put his cross in one place. Consequently, there is no other option than the lowest frequency or intensity.

This approach may have caused irritation among some respondents: It is generally known in market research that respondents who are to give an answer on a rating scale first determine the number of scale levels (i.e. count the levels from 1 to n and number them mentally) and determine the middle of the scale. They need this information to adjust their ticking behaviour.

In the present case, the first box is therefore defined as "1" and the last box as "7" (no one would think of starting their count with "0"). The middle of the scale is "4". The first scale level is therefore perceived as "frequency 1" or "strength 1".

For the person who has no complaints at all, the interpretation of the scale creates a problem of explanation, because he wants to express that he "never" and not "very rarely" (at the lowest level) has complaints. He now has three possibilities to deal with this:

First possibility: In the absence of any other answer, he interprets the lowest level as "no complaints" and places his cross (or his circle) here. This is also the most likely way around.

Second option: The respondent asks the therapist which answer to give for "no complaints". Some respondents made use of this option (source: telephone conversation with Mr. Lerro). It was then explained to them that they could either tick the first box or not tick at all. The respondents made use of both answer options.

Third possibility: The lowest scale level is interpreted as "minor" or "no significant" complaints and "no complaints" is documented by "no answer".

The given "filling-in instructions" and the variations in response behaviour have the following consequences in the context of data evaluation and result interpretation:

(1) Recoding

It is necessary to interpret both the cross in the first box and "no answer" as "no/no significant complaints" (technical solution: recoding from "no answer" to "1").

In the present case, this approach is necessary due to the constraints, but it is not completely correct in terms of methodology: on the one hand, it cannot be decided afterwards whether a respondent actually had "no complaints" or simply wanted to give "no answer" to the item. For the "before survey" this is largely unproblematic; the survey result is not significantly influenced. At most, the number of those who had corresponding complaints at the beginning of treatment could actually be higher. Respondents who - for whatever reason - did not want to give an answer to the item in the post-survey are now classified under "No/no significant complaints". Here, the number of those who still had complaints but did not want to state this ("No answer") could actually be higher.

(2) Elimination of plausibility errors

Respondents who have chosen option three want to express by ticking the first box that they have "minor complaints" (for the frequency e.g. "very rarely", for the severity e.g. "very slight"). In this case, the combination "frequency 1/severity3" is plausible.

After recoding, however, this combination is no longer permissible. Because now it says "Frequency 1" for "No complaints", which means that the severity must also not be above 1 (e.g.: the combination "No migraine"/"Medium severity" is not possible).

In order to obtain valid results, a (time-consuming) plausibility check of the answers given was necessary. The plausibility errors were detected and replaced by answers that were meant accordingly by the respondent (in the example: value for migraine frequency set from 1 to 2).

The following table shows which plausibility corrections were carried out in detail and which terms were used for the combination of frequency and strength.

Terminology for treatment outcome for frequency and strength		
Value VOR	**Value AFTER**	**Term for treatment outcome**
1	1	No/no complaints worth mentioning
2/3/4/5/6 or 7	1	Complaint-free
3/4/5/6 or 7	lower than VOR (not 1)	Betterment
2/3/4/5/6 or 7	as BEFORE	No change
1/2/3/4/5/6 or 7	higher than BEFORE	Deterioration

Possible combinations		
Treatment outcome - frequency	**Treatment result - Strength**	**Treatment outcome - total**
No/no complaints worth mentioning	No/no complaints worth mentioning	No/no complaints worth mentioning
	Complaint-free	**Not possible (plausibility correction)**
	Betterment	**Not possible (plausibility correction)**
	No change	**Not possible (plausibility correction)**
	Deterioration	**Not possible (plausibility correction)**
Complaint-free	No/no complaints worth mentioning	**Not possible (plausibility correction)**
	Complaint-free	Complaint-free
	Betterment	**Not possible (plausibility correction)**
	No change	**Not possible (plausibility correction)**
	Deterioration	**Not possible (plausibility correction)**
Betterment	No/no complaints worth mentioning	**Not possible (plausibility correction)**
	Complaint-free	**Not possible (plausibility correction)**
	Betterment	Betterment
	No change	Betterment
	Deterioration	Conditional improvement
No change	No/no complaints worth mentioning	**Not possible (plausibility correction)**
	Complaint-free	**Not possible (plausibility correction)**
	Betterment	Betterment
	No change	No change
	Deterioration	Deterioration
Deterioration	No/no complaints worth mentioning	**Not possible (plausibility correction)**
	Complaint-free	**Not possible (plausibility correction)**
	Betterment	Conditional improvement
	No change	Deterioration
	Deterioration	Deterioration

Note: For further surveys, *ATLANTOtec®* is advised to change the questionnaire here accordingly and to clearly mark the first answer box with "No/no significant complaints". "No data" should then be treated as what it is, i.e. as "no values available".

4 Study results at Overview

4.1 Complaint status at Start of treatment

Why do patients come to the *ATLANTOtec*® practice, i.e. for which complaints do they expect relief?

The following figure shows the results of the survey. It shows the proportion of respondents who had complaints before the treatment (and therefore ticked between 2 and 7 on the frequency scale).

Proportion of patients who had complaints at the start of treatment

Complaint	Complaints	None / no complaints worth mentioning
Neck pain	94%	6%
Fatigue	85%	15%
Tensions	81%	19%
Low back pain	79%	21%
Shoulder complaints	79%	21%
Headache	78%	22%
Sleep complaints	70%	30%
Gastrointestinal complaints	67%	33%
Dizziness	65%	35%
Circulatory problems	60%	40%
Hip complaints	53%	47%
Knee complaints	52%	48%
Depression	45%	55%
Migraine	44%	56%
Tinnitus	39%	61%
Elbow complaints	38%	62%
Nervousness	31%	69%
Blood pressure	30%	70%
Other	18%	82%

Survey result:

At the beginning of the treatment, the patients name an average of about 11 (out of 18 given) different complaints that burden their well-being in varying intensity (frequency/strength) and where they therefore expect relief from the _ATLANTOtec®_ treatment.

Almost all patients mention neck pain.

More than three quarters are plagued by fatigue, tension, back pain, shoulder pain and headaches.

More than two thirds of all patients complain about sleep and gastrointestinal problems as well as dizziness.

Circulatory, hip and knee complaints are a reason for treatment for over half of all practice visitors.

More than a third of all respondents complain of depression, migraine, tinnitus and elbow pain.

The complaints mentioned by the respondents naturally burden the patients to varying degrees. For most of the complaints mentioned per person, a rather low frequency/severity is given (cf. the evaluation of individual complaint fields in chapter 4). As a rule, they are not the actual reason for visiting the practice. Rather, these are the areas of complaint that occur with great frequency or severity.

Chapter 3.6. makes it clear which complaints are involved.

4.2 Number of complaints at Start of treatment

As has become clear, patients generally do not visit the *ATLANTOtec®* practice for only one reason for their complaint. On average, about 11 out of 18 complaints are given.

The following figure shows how many different complaints patients are "plagued" with at the beginning of treatment.

Number of complaint areas mentioned by the patients at the beginning of treatment

Reason	Percentage
1 reason for treatment	0.4%
2 Reasons for treatment	1.2%
3 Reasons for treatment	0.2%
4 Reasons for treatment	3,0%
5 Reasons for treatment	4,4%
6 Reasons for treatment	3,2%
7 Reasons for treatment	6,9%
8 Reasons for treatment	6,3%
9 Reasons for treatment	8,3%
10 Reasons for treatment	8,7%
11 Reasons for treatment	9,3%
12 Reasons for treatment	10,7%
13 Reasons for treatment	10,1%
14 Reasons for treatment	6,0%
15 Reasons for treatment	6,7%
16 Reasons for treatment	7,1%
17 Reasons for treatment	4,8%
18 Reasons for treatment	1,8%
19 Reasons for treatment	0,8%

Survey result:

Only a few patients come for treatment for one (0.4%) or two (1.2%) reasons. In most cases, there are 10 or more different areas of complaints that limit their well-being.

On average, the patients name about 11 (out of 18 given) different complaints.

4.3 Treatment outcome general

Patients usually come to the practice with several complaints and hope for relief through the application of the *ATLANTOtec*® treatment.

A treatment success can be said to have been achieved if the patient is "free of complaints" in at least one area after about one month (after this period of time, the post-treatment questionnaire was conducted) or if there is at least an improvement in the frequency and/or severity of the complaints.

Another treatment outcome may be that the patient has had an exacerbation of their complaints in at least one area.

Occasionally, a combination of both can be observed: This is when the frequency of the complaints has increased in at least one area and the severity has decreased at the same time (or vice versa). Colloquially, one could speak of "improvement" (we use the term "conditional improvement").

Proportion of patients who experienced an improvement or worsening in at least one complaint area

Category	Value
Complaint-free	74%
Improvement Frequency and/or strength	95%
Conditional improvement	7%
Deterioration	24%
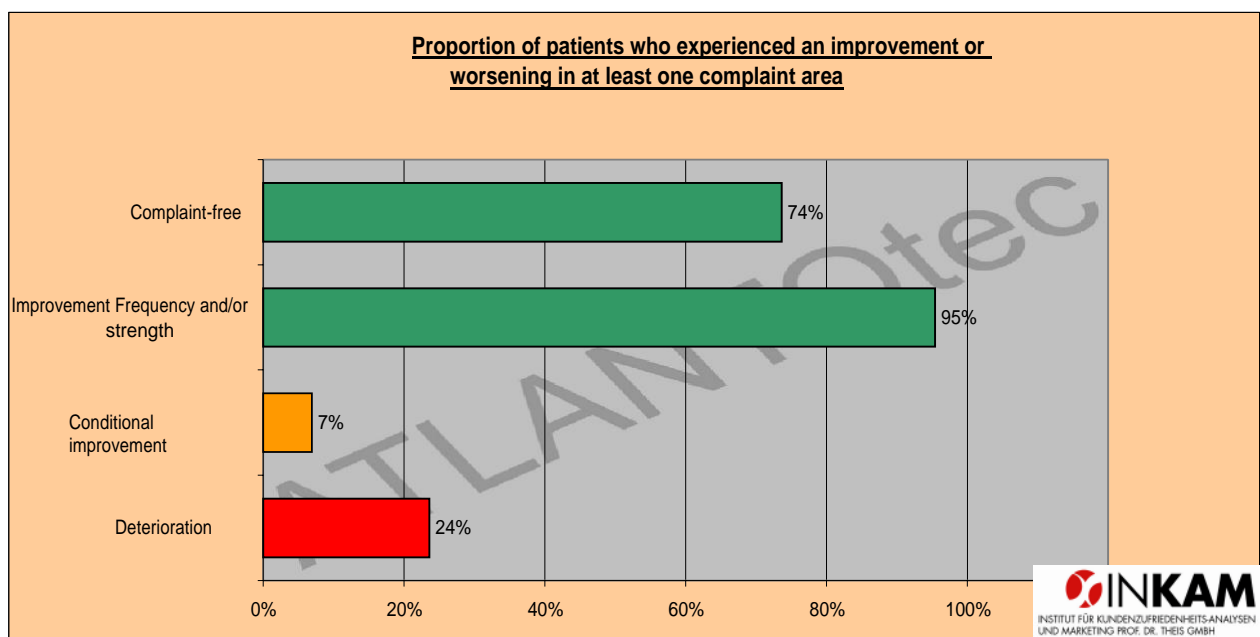
Survey result:

Three quarters of all respondents (74%) were free of complaints in at least one area after the *ATLANTOtec*® treatment. An improvement in their well-being (through a decrease in the frequency and/or severity of the complaints) in at least one of their complaints was observed by 95% of all respondents.

24% observed a worsening in at least one complaint area. 7% experienced a "conditional improvement" in at least one complaint area.

4.4 Treatment outcome across all complaint areas

Previously, it was examined how many patients experienced an improvement or worsening in at least one complaint area. The focus is now on the question of what result is observed for 2, 3, 4 etc. areas of complaint. The following table shows the results for all areas of complaint. The following table shows the results for all 19 areas of complaint (18 predefined areas of complaint and one "other area of complaint").

Number of complaints Areas	Proportion free of complaints	Proportion Improvement (at frequency and/or strength)	Share Conditional Improvement	Proportion deterioration
0	26,4%	4,6%	93,1%	76,4%
1	21,4%	4,8%	5,8%	14,5%
2	16,3%	5,8%	1,2%	5,4%
3	12,9%	7,5%	0,0%	2,6%
4	6,7%	10,1%	0,0%	0,4%
5	4,4%	10,9%	0,0%	0,4%
6	2,8%	11,3%	0,0%	0,0%
7	3,4%	8,1%	0,0%	0,2%
8	1,4%	9,1%	0,0%	0,2%
9	1,2%	8,5%	0,0%	0,0%
10	1,8%	6,2%	0,0%	0,0%
11	0,2%	5,0%	0,0%	0,0%
12	0,6%	3,8%	0,0%	0,0%
13	0,2%	1,6%	0,0%	0,0%
14	0,4%	1,6%	0,0%	0,0%
15	0,0%	0,6%	0,0%	0,0%
16	0,0%	0,6%	0,0%	0,0%
17	0,0%	0,0%	0,0%	0,0%
18	0,0%	0,0%	0,0%	0,0%
19	0,0%	0,0%	0,0%	0,0%

Survey result:

The table shows for any number of complaint areas which treatment result was achieved. For example

26.4% not symptom-free in any area after treatment

21.4% free of complaints in one area and 16.3% free of complaints in two areas (hence: 37.8% are free of complaints in up to 2 areas).

4.5 Treatment success for individual complaint areas in terms of frequency and severity of complaints

The results described above have shown that by far the majority of patients experienced a general alleviation of their complaints through the *ATLANTOtec*® treatment. Now it has to be examined for the specific complaints how the treatment has affected the well-being of the patients.

Ideally, the patient is symptom-free after the treatment. However, success is also achieved when there is improvement due to decreasing frequency and/or severity.

On the other hand, the so-called "conditional improvement" takes a hybrid position: In individual cases, the frequency of the complaints decreases while the severity increases (or vice versa; the severity decreases while the frequency increases). To what extent one can actually speak of an "improvement" here is in the eye of the beholder.

Another possibility is that the patient does not notice any changes after the treatment or that the condition even worsens.

The following figure shows the results for the individual complaint fields.

Survey result:

The evaluation of the patient survey shows that the *ATLANTOtec*® treatment was able to improve the patients' well-being in many areas of complaint.

The treatment achieved the greatest success with migraine patients: 39% of all respondents were free of complaints (one month) after the atlas correction. A further 43% experienced a reduction in the frequency and/or severity of their complaints.

At least seven out of ten patients surveyed stated that they were free of complaints or had at least noticed a reduction in the frequency and/or severity of complaints in the following areas around one month after the *ATLANTOtec*® treatment: Neck pain, headaches, tension, shoulder pain, dizziness, migraine, lower back pain, fatigue, hip pain, sleeping problems, tinnitus, depression and gastrointestinal problems.

	Complaint-free	Improvement in frequency and/or strength	Conditional improvement	No change	Deterioration
	39%	43%	1%		14
	30%	41%	1%	27%	1
	30%	39%	1%	25%	6%
	29%	53%	1%		14
	28%	45%	1%	25%	2%
	25%	29%	1%	40%	4%
	25%	44%	1%	24%	6%
	25%	44%	0%	28%	3%
	25%	50%	0%1		5%
	22%	43%	0%	32%	2%
	22%	58%		0%18%2%	
	21%	66%	1% 10% 3%		
	20%	49%	1%	26%	4%
	18%	57%	0%2		3%
	18%	64%	1%		13
	17%	67%	1% 11% 4%		
	14%	74%	0%8% 4%		
	13%	65%	1%17%3%		

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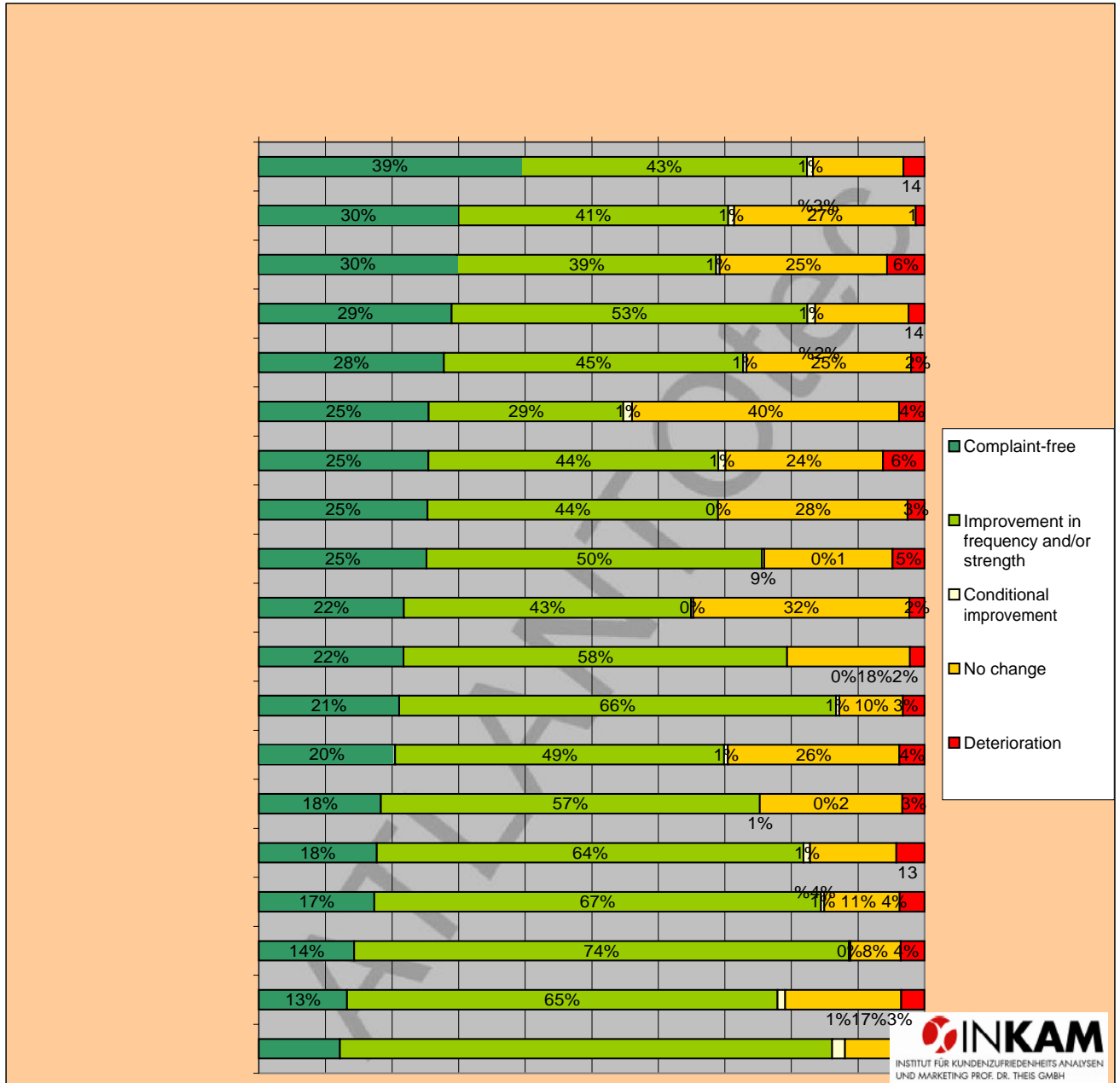
4.6 Treatment success for individual complaint areas with regard to the frequency of complaints

The following figure shows how the *ATLANTOtec*® treatment affected the <u>frequency of </u> the individual complaints.

The result of the treatment may be that the patients are free of symptoms after the treatment or that there is at least an improvement (due to a decrease in the frequency of the symptoms). Furthermore, there is the possibility that no change (unchanged frequency) or a worsening (due to increasing frequency of occurrence) has occurred.

Course of complaint frequency after treatment

Complaint	Complaint-free	improvement	No change	Deterioration
Headache	21%	64%	12%	3%
Neck pain	14%	71%	13%	3%
Tensions	12%	72%	13%	3%
Dizziness	29%	52%	17%	2%
Shoulder complaints	17%	63%	17%	3%
Migraine	39%	41%	16%	4%
Low back pain	18%	61%	18%	4%
Other	22%	57%	20%	2%
Fatigue	13%	62%	22%	3%
Sleep complaints	18%	55%	24%	3%
Hip complaints	25%	46%	24%	5%
Tinnitus	28%	42%	28%	2%
Gastrointestinal complaints	20%	48%	28%	3%
Knee complaints	25%	40%	28%	6%
Depression	30%	36%	33%	1%
Elbow complaints	30%	35%	30%	5%
Nervousness	25%	39%	34%	3%
Circulatory problems	22%	42%	34%	3%
Blood pressure	25%	29%	42%	4%

Survey result:

The *ATLANTOtec®* treatment led to a decrease in the frequency of complaints in all the above-mentioned complaint areas in the majority of the patients surveyed.

The greatest treatment success in this regard was recorded by the patients surveyed for the issues of headaches and neck pain; 85% self-diagnosed a reduction in frequency or relief from pain.

The treatment was almost as successful with regard to the frequency of complaints of tension, dizziness, shoulder complaints and migraine; 8 out of 10 patients were able to record a relief of complaints or a lower frequency.

For more than 7 out of 10 respondents, the atlas correction led to pain relief or a reduction in the frequency of low back pain, fatigue, sleep, hip and tinnitus complaints.

6 out of 10 patients were able to observe success in all other areas of complaints (except blood pressure problems) in the form of relief from complaints or a decrease in the frequency of complaints.

A worsening in the sense of an increasing frequency of complaints was only perceived in a few cases (e.g. 6% for knee complaints).

4.7 Treatment success for individual complaint areas with regard to the severity of the complaints

The following figure shows how the *ATLANTOtec®* treatment affected the severity of the individual complaints.

Here, too, possible treatment results are: Free of symptoms, improvement, no change or worsening.

Course of the severity of complaints after treatment
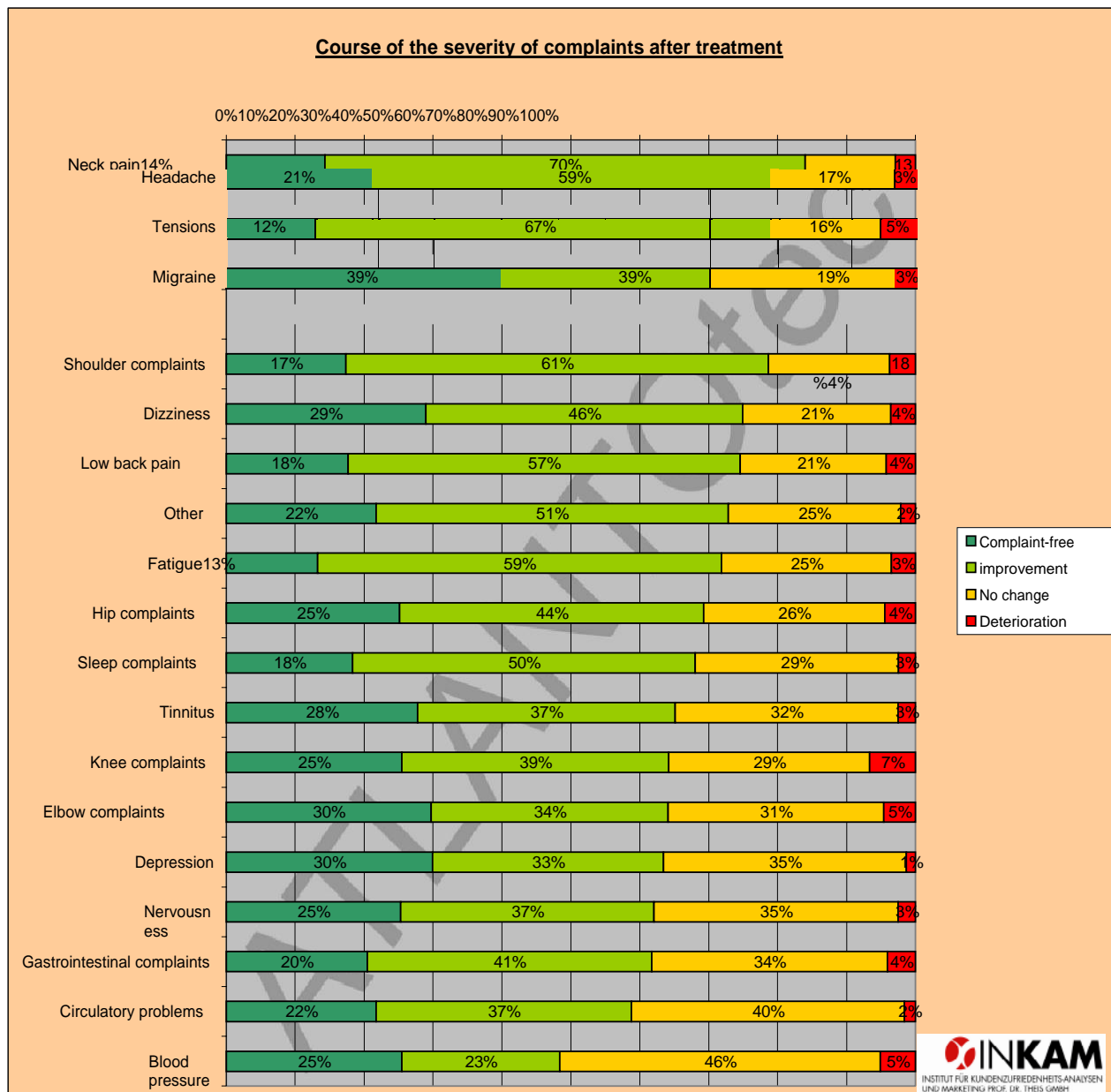
Survey result:

Overall, not only the frequency of the complaints but also their severity has decreased due to the *ATLANTOtec®* treatment.

Patients with neck complaints notice this most often. 84% experienced a reduction in intensity or relief from complaints.

The front-runner is closely followed by the issues of headaches, tension, migraine, shoulder complaints, dizziness, low back complaints and fatigue; for more than 7 out of 10 patients, the severity of the complaints has decreased or is no longer present at all.

More than half of all respondents see success in all other areas of complaints (slightly less than half for blood pressure complaints).

4.8 Average change in the degree of complaint frequency and severity

The result of the *ATLANTOtec*® treatment is usually a change in the frequency and/or severity of the complaints. In this respect, it is of interest to determine to what extent the frequency and severity of the complaints have changed on average.

The results of this question also provide information on the question of which areas of complaints the *ATLANTOtec*® treatment promises (statistically) the greatest success.

The graphs on the following two pages show the results of the calculations.

Survey result:

On average across all respondents, not only the frequency of all complaints but also their severity has decreased as a result of the *ATLANTOtec*® treatment.

Complaint frequency BEFORE treatment averaged 4.4 on the 7-point rating scale and 2.7 AFTER treatment. The severity BEFORE treatment averaged 4.2 and 2.6 AFTER treatment. Consequently, (on average across all complaint fields and respondents) complaint frequency decreased by 1.7 and severity by 1.6 steps.

The patients with neck complaints notice this most clearly: The average frequency of complaints BEFORE the start of treatment was 5.5 on the 7-point rating scale and 3.1 after treatment (severity of complaints 5.2 and 3.0).

Similarly strong positive results were achieved in the complaint fields of tension and shoulder complaints. On the one hand, they affect the patients' well-being the most (frequency of complaints is highest here). On the other hand, they have the highest potential for reducing the frequency of complaints.

In all other areas of complaints, an extremely reduced frequency of complaints (on average) was also observed after the atlas correction.

With regard to the severity of the complaints, one result in particular should be emphasised: In the complaint field of migraine (average load on the severity scale: 4.8), the severity could be reduced on average to level 2.5 through the atlas correction.

Average complaint frequency BEFORE and AFTER the treatment

Complaint	BEFORE treatment	AFTER treatment
Neck pain	5,5	3,1
Tensions	5,3	3,1
Other	5,3	3,0
Shoulder complaints	5,0	2,9
Headache	4,7	2,5
Fatigue	4,7	3,1
Low back pain	4,6	2,9
Tinnitus	4,3	2,8
Sleep complaints	4,2	2,7
Hip complaints	4,2	2,7
Migraine	4,2	2,3
Blood pressure	4,2	2,8
Gastrointestinal complaints	4,1	2,7
Dizziness	4,1	2,3
Knee complaints	4,0	2,6
Elbow complaints	4,0	2,4
Circulatory problems	3,9	2,7
Nervousness	3,3	2,1
Depression	3,2	2,1

**Average complaint strength
BEFORE and AFTER the treatment**

Complaint	BEFORE treatment	AFTER treatment
Neck complaints	5,2	3,0
Tension	5,0	3,0
Other	5,0	2,9
Migraine	4,8	2,5
Shoulder complaints	4,8	2,8
Headaches	4,7	2,6
Fatigue	4,5	2,9
Low back pain	4,5	2,8
Hip complaints	4,1	2,6
Sleep complaints	4,0	2,6
Knee complaints	3,9	2,5
Gastrointestinal complaints	3,9	2,6
Dizziness	3,9	2,3
Elbow complaints	3,9	2,4
Tinnitus	3,8	2,6
Circulatory problems	3,7	2,4
Blood pressure	3,6	2,6
Nervousness	3,4	2,2
Depression	3,3	2,1

5 Fields of complaint in detail at

In the preceding explanations it became clear that the interviewees of the *ATLANTOtec*® treatment could certify a positive course of the complaints after the treatment for most of the complaint fields. Now the question arises whether different patient groups come to a similar conclusion or differ from each other.

When differentiating the judgements, it is important to distinguish between the countries surveyed (*ATLANTOtec*® - practices from Switzerland and Sweden) as well as the gender and age of the patients.

5.1 Neck pain

5.1.1 Complaint status at the beginning of the treatment

The following graph shows what proportion of patients - differentiated according to the various patient groups - suffered from neck complaints before treatment.
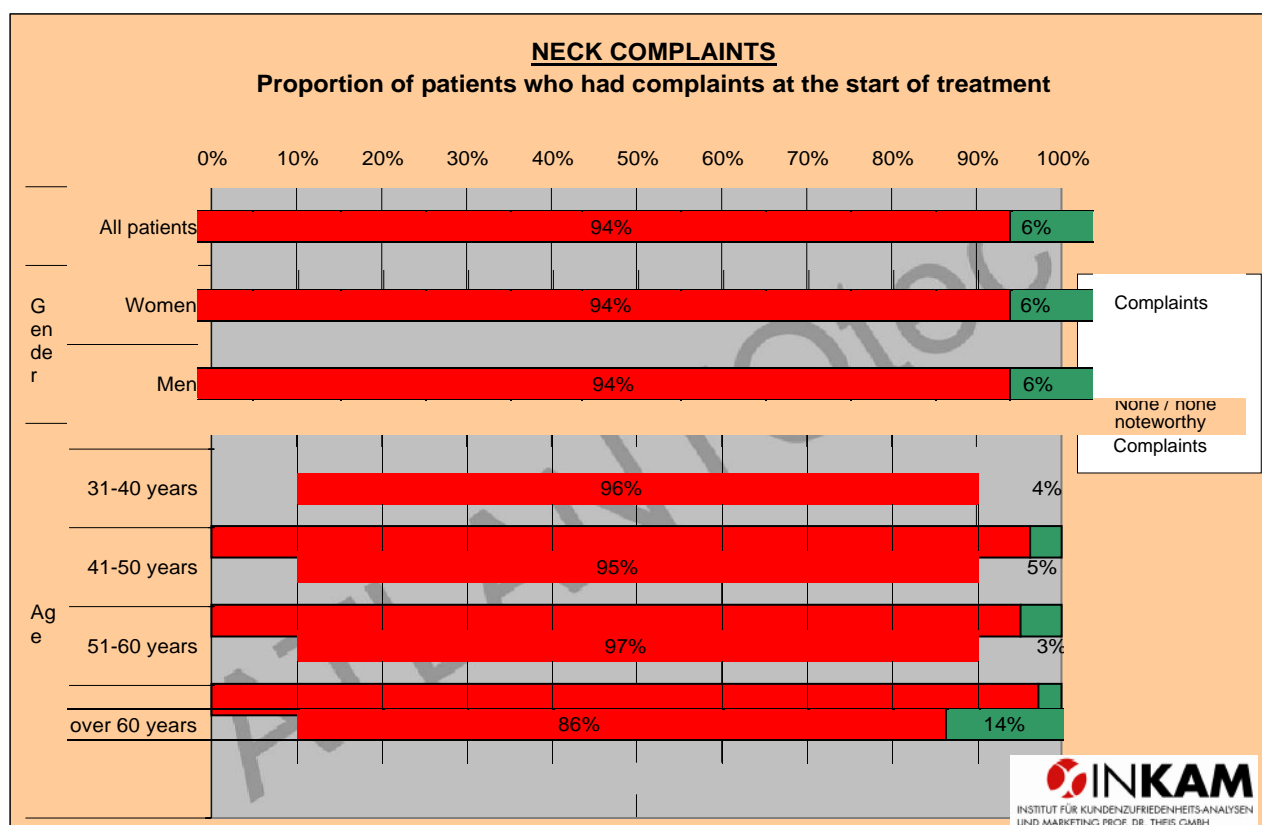
5.1.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of severity and frequency in those patients who complained about neck complaints at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the ATLANTO- tec® treatment.

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.1.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of neck complaints.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **15% of** all respondents. For **15%, the** frequency of complaints was reduced by one level, for **37%** by two levels, for **22%** by three levels and for **11% by** four levels. Consequently, 11% of all level 5 patients are free of complaints (no/no significant complaints).
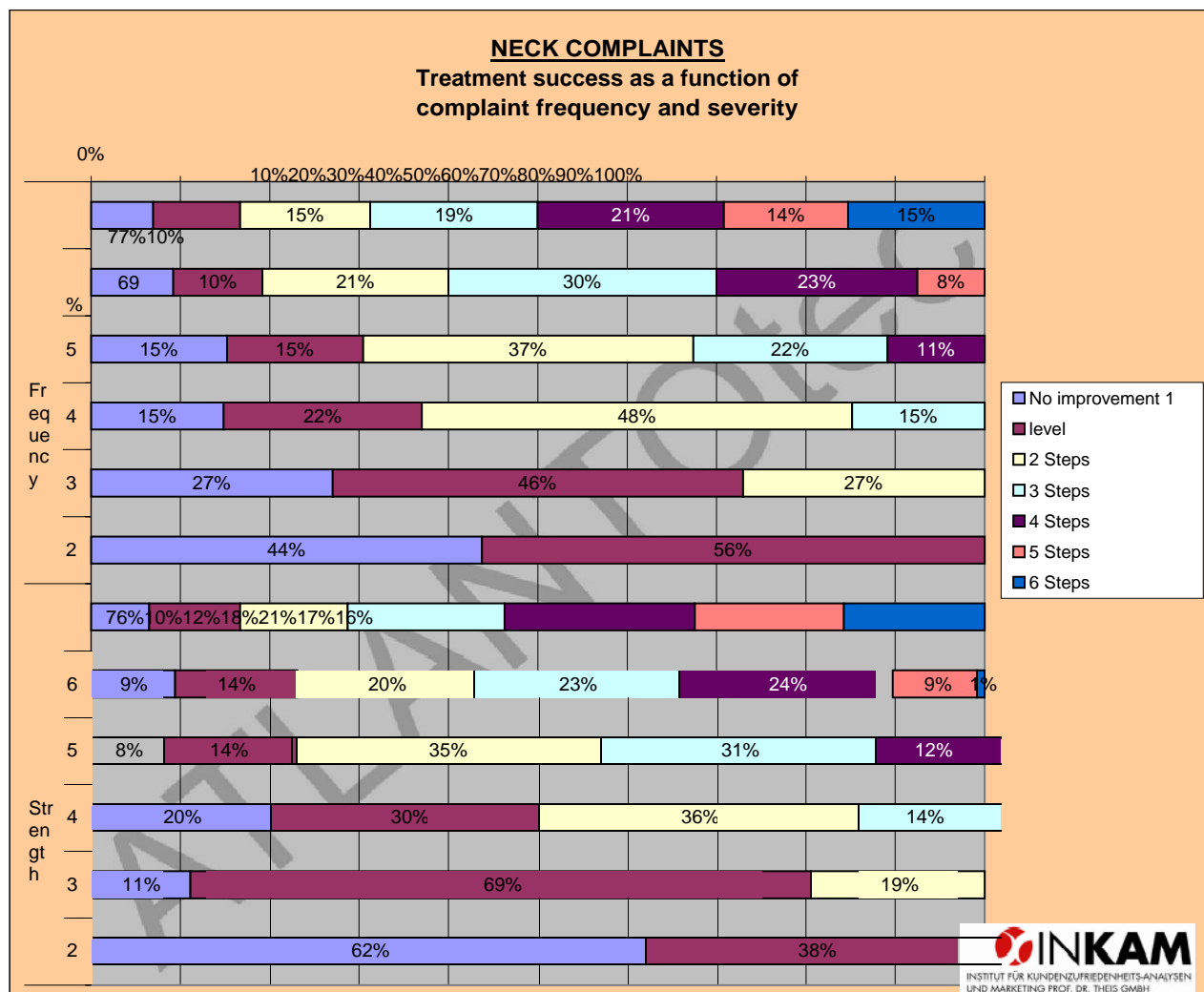
5.1.4 Average frequency of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of **neck complaints** has changed on average across all patients (with complaints before treatment) as a result of the *ATLANTOtec*® treatment.

NECK COMPLAINTS
Average complaint frequency BEFORE and AFTER treatment

Group		BEFORE treatment	AFTER treatment
All patients		5,5	3,1
Gender	Women	5,7	3,2
	Men	5,2	3,0
Age	up to 30 years	5,3	3,1
	31-40 years	5,4	3,0
	41-50 years	5,8	3,3
	51-60 years	5,4	3,1
	over 60 years	5,3	2,9

5.1.5 Average complaint severity BEFORE and AFTER the treatment

The following graph shows - differentiated according to the various patient groups - how the severity of *neck complaints* has changed on average for all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

NECK COMPLAINTS
Average severity of complaints BEFORE and AFTER treatment

Group	BEFORE treatment	AFTER treatment
All patients	5,2	3,0
Gender – Women	5,3	3,0
Men	5,0	2,9
Age – up to 30 years	5,0	3,0
31-40 years	5,2	2,8
41-50 years	5,6	3,1
51-60 years	5,0	2,9
over 60 years	5,1	2,8

5.2 Fatigue

5.2.1 Complaint status at the beginning of the treatment

The following graph shows what proportion of patients - differentiated according to the various patient groups - suffered from fatigue before treatment.
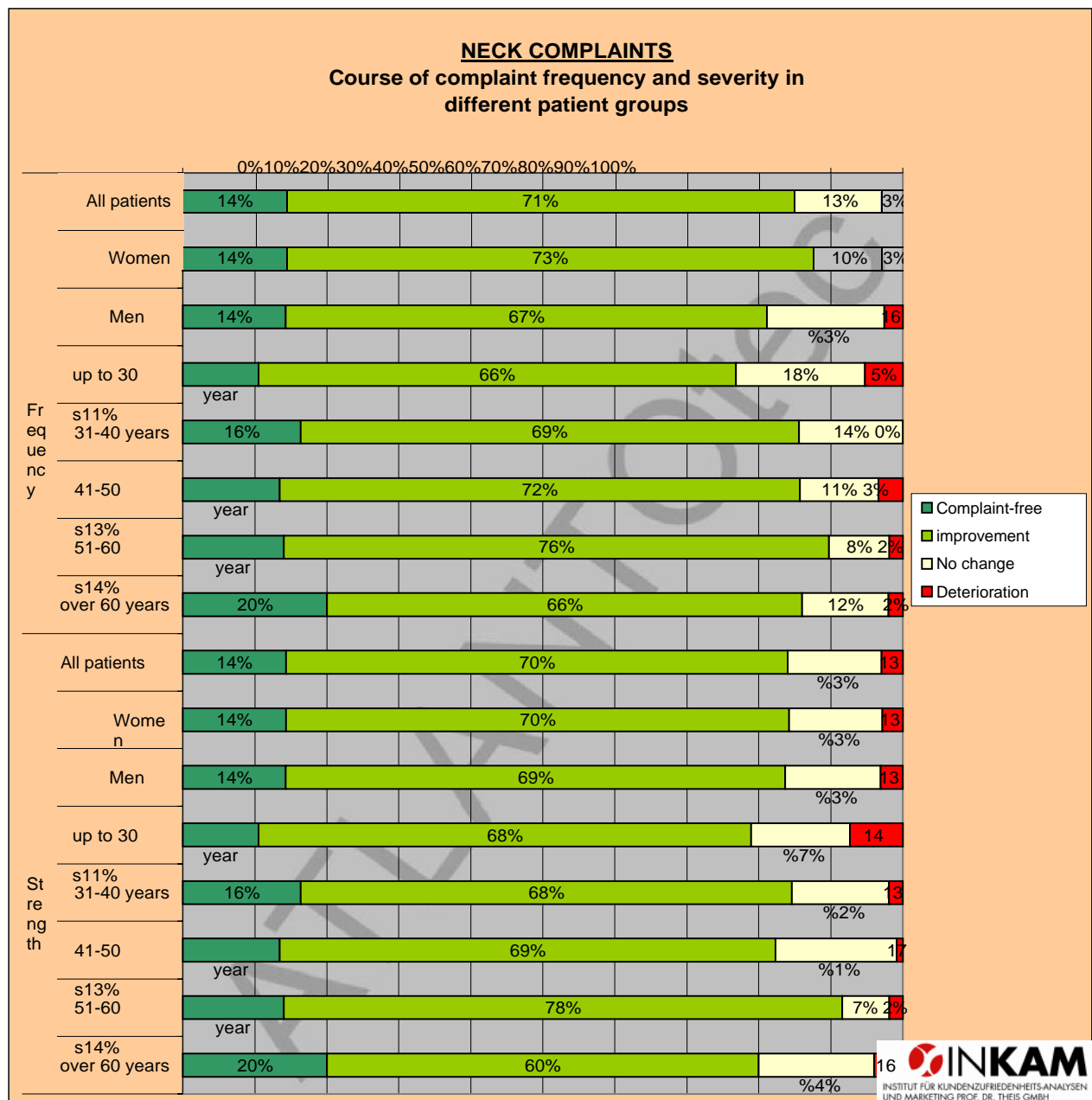

5.2 Fatigue

5.2.1 Complaint status at the beginning of the treatment

The following graph shows what proportion of patients - differentiated according to the various patient groups - suffered from fatigue before treatment.

TIRED
Proportion of patients who had complaints at the start of treatment

		Complaints	None / no complaints worth mentioning
All patients		85%	15%
Gender	Women	86%	14%
	Men	83%	17%
Age	up to 30 years	86%	14%
	31-40 years	90%	10%
	41-50 years	87%	13%
	51-60 years	83%	17%
	over 60 years	72%	28%

5.2.2 Effects of treatment on frequency and severity of complaints

The following figure shows the progression of symptoms in terms of <u>severity and frequency for</u> those patients who complained of fatigue at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the *ATLANTOtec*® treatment.

TIRED
Course of complaint frequency and severity in different patient groups

|	Complaint-free	improvement	No change	Deterioration
Frequency All patients	13%	62%	22%	3%
Women	14%	62%	21%	3%
Men 12%		61%	23%	4%
up to 30 year s13%		56%	27%	4%
31-40 years	16%	64%	18%2%	
41-50 ye ars6%		65%	25%	4%
51-60 year s14%		62%	19%	4%
over 60 years	21%	60%	17%	2%
Strength All patients13%		59%	25%	3%
Wo men14%		61%	22%	3%
Men 12%		55%	28%	5%
up to 30 year s13%		56%	28%	3%
31-40 years	16%	63%	20%1%	
41-50 ye ars6%		61%	29%	4%
51-60 year s14%		56%	24%	6%
over 60 years 2%	21%	55%	21%	

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.2.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec®* treatment.
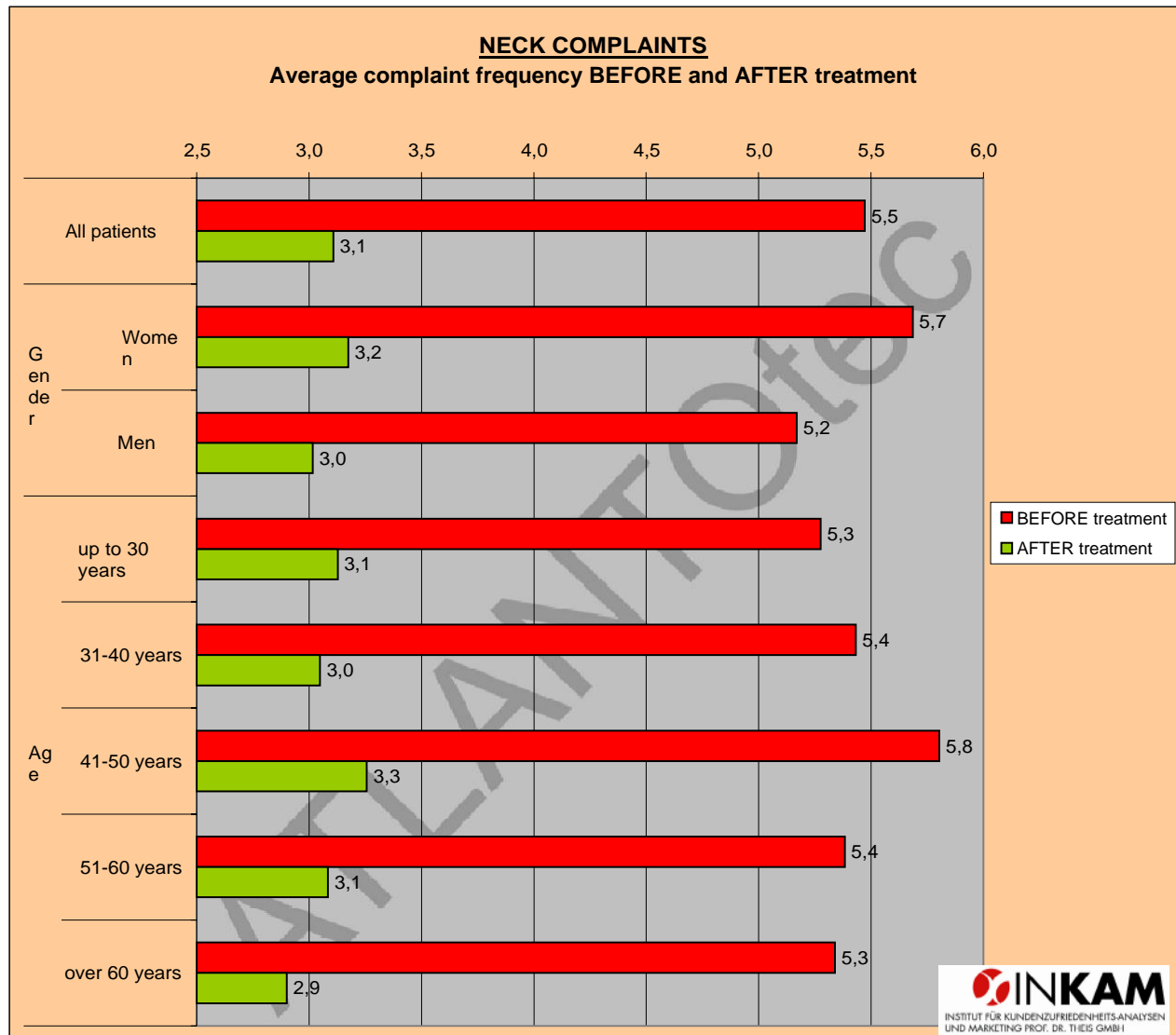
The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of fatigue.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **7%** of all respondents. For **21%, the** frequency of complaints was reduced by one level, for **39% by** two levels, for **25%** by three levels and for **8%** by four levels. Consequently, 8% of all level 5 patients are free of complaints (no/no significant complaints).

TIRED
Treatment success as a function of complaint frequency and severity

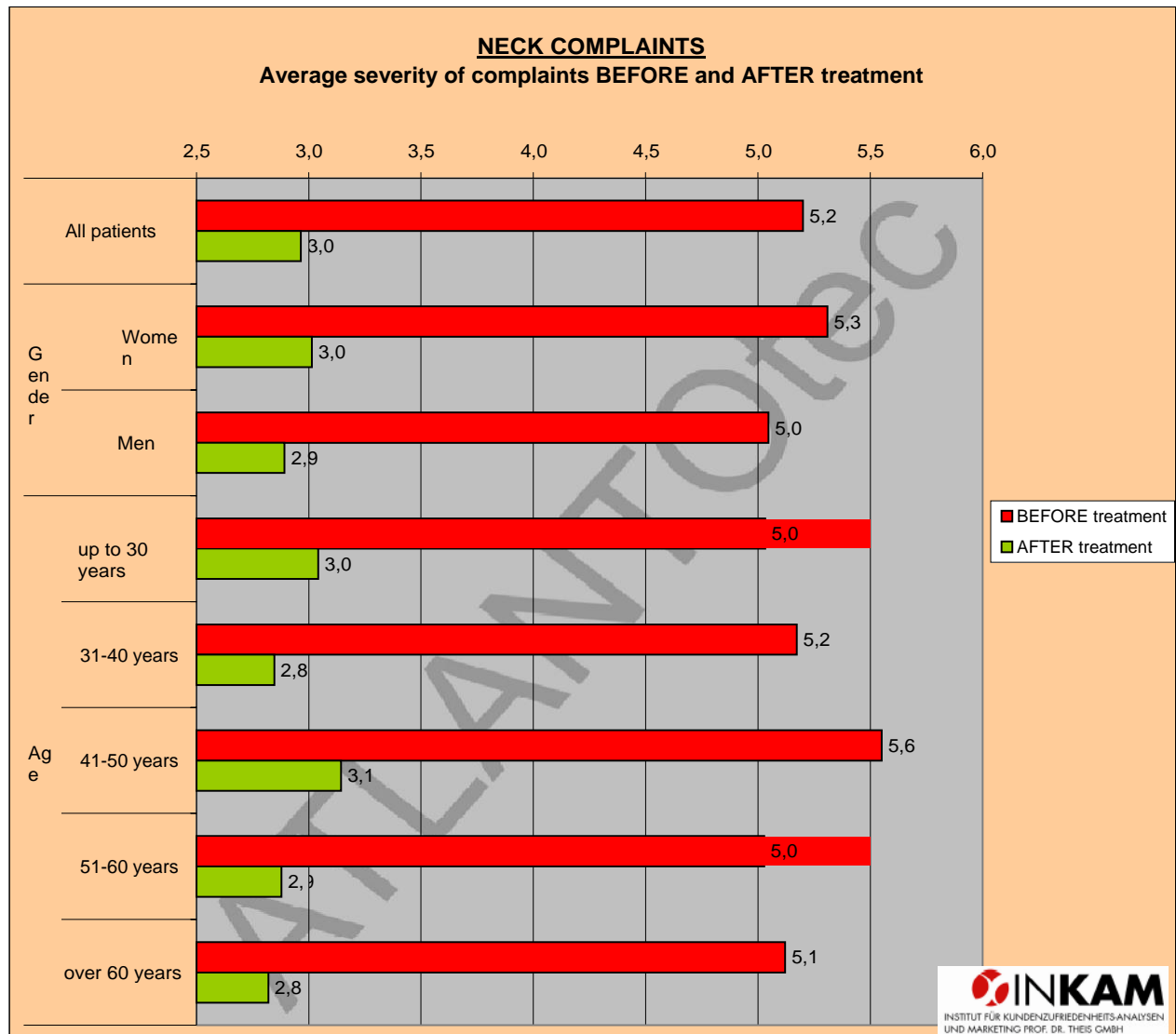## 5.2.4 Average frequency of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of complaints of *fatigue* has changed on average over all patients (with complaints before treatment) as a result of the *ATLANTOtec*® treatment.

TIRED
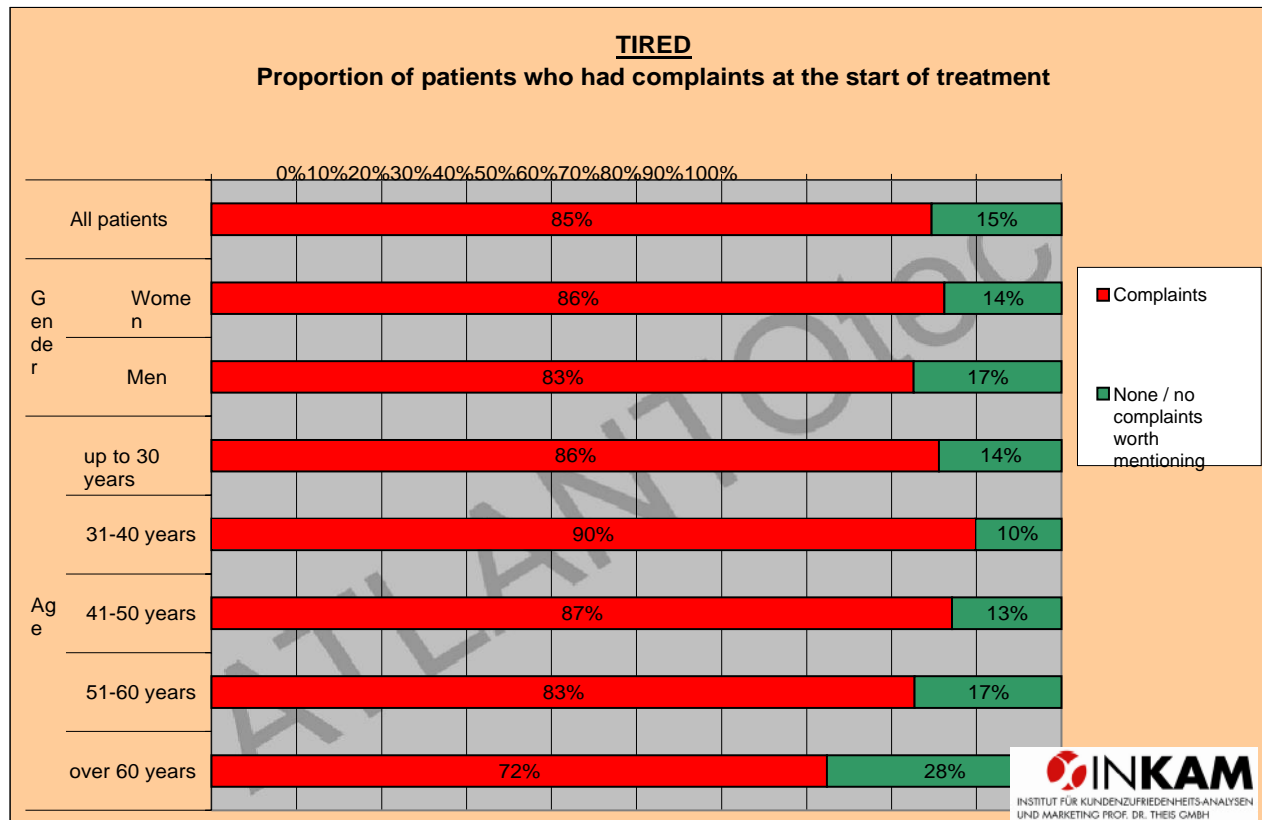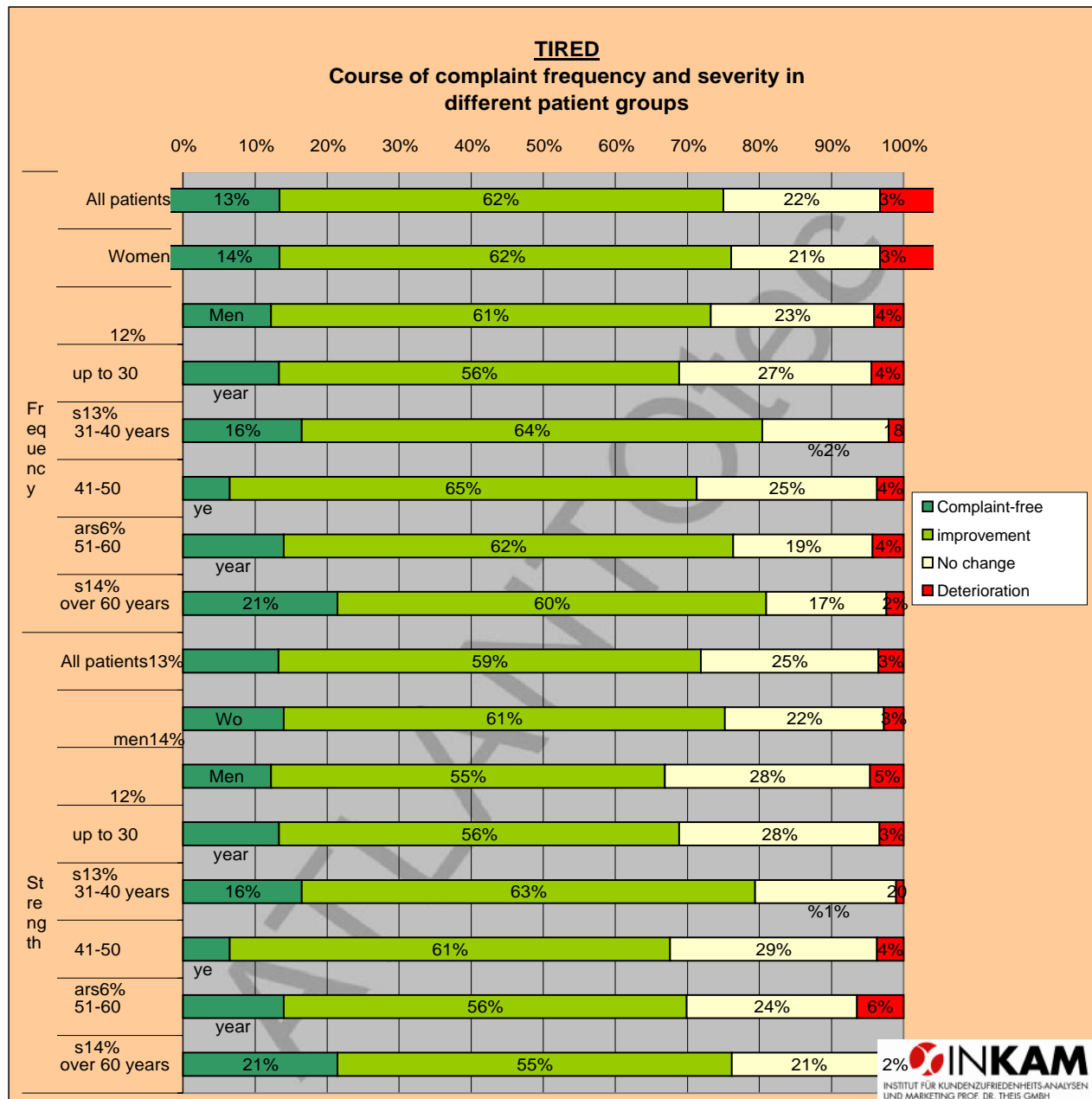**Average complaint frequency BEFORE and AFTER treatment**

Patient group		BEFORE treatment	AFTER treatment
All patients		4,7	3,1
Gender	Women	4,8	3,1
	Men	4,5	3,0
Age	up to 30 years	4,7	3,1
	31-40 years	4,9	3,0
	41-50 years	4,8	3,3
	51-60 years	4,4	2,9
	over 60 years	4,4	2,7

5.2.5 Average complaint severity BEFORE and AFTER the treatment

The following graph shows - differentiated according to the various patient groups - how the severity of complaints of *fatigue* has changed on average over all patients (with complaints before treatment) as a result of the *ATLANTOtec*® treatment.

TIRED
Average severity of complaints BEFORE and AFTER treatment

Group	BEFORE treatment	AFTER treatment
All patients	4,5	2,9
Gender Women	4,6	2,9
Men	4,4	2,9
Age up to 30 years	4,5	2,9
31-40 years	4,7	2,9
41-50 years	4,7	3,2
51-60 years	4,3	2,9
over 60 years	4,1	2,4

5.3 Tensions

5.3.1 Complaint status at the beginning of the treatment

The following graph shows the proportion of patients - differentiated according to the various patient groups - who suffered from tension before the treatment.
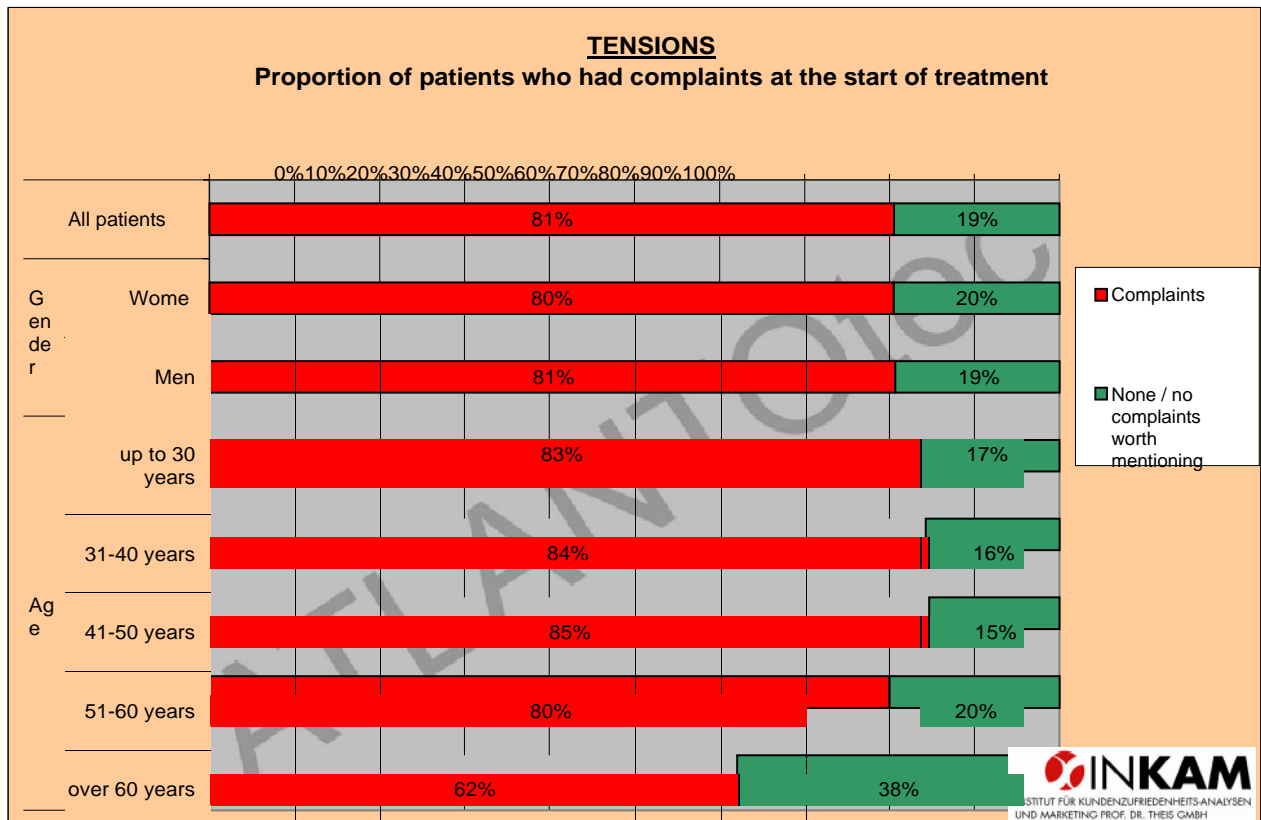
5.3.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of severity and frequency for those patients who complained about tension at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the *ATLANTOtec*® treatment.

TENSIONS
Course of complaint frequency and severity in different patient groups

	Complaint-free	improvement	No change	Deterioration
Frequency				
All patients	12%	72%	%3%	13
Women	13%	74%	10%	3%
Men	11%	69%	%2%	17
up to 30 years	12%	71%	%5%	13
31-40 years	11%	71%	%2%	16
41-50 years	16%	71%	11%	2%
51-60 years	7%	81%	11%	1%
over 60 years	18%	61%	%5%	16
Strength				
All patients	12%	67%	%5%	16
Women	13%	68%	%5%	14
Men	11%	64%	18%	6%
up to 30 years	12%	60%	19%	9%
31-40 years	11%	68%	%5%	15
41-50 years	16%	65%	%4%	15
51-60 years	7%	80%	10%	3%
over 60 years	18%	50%	26%	5%

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.3.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.
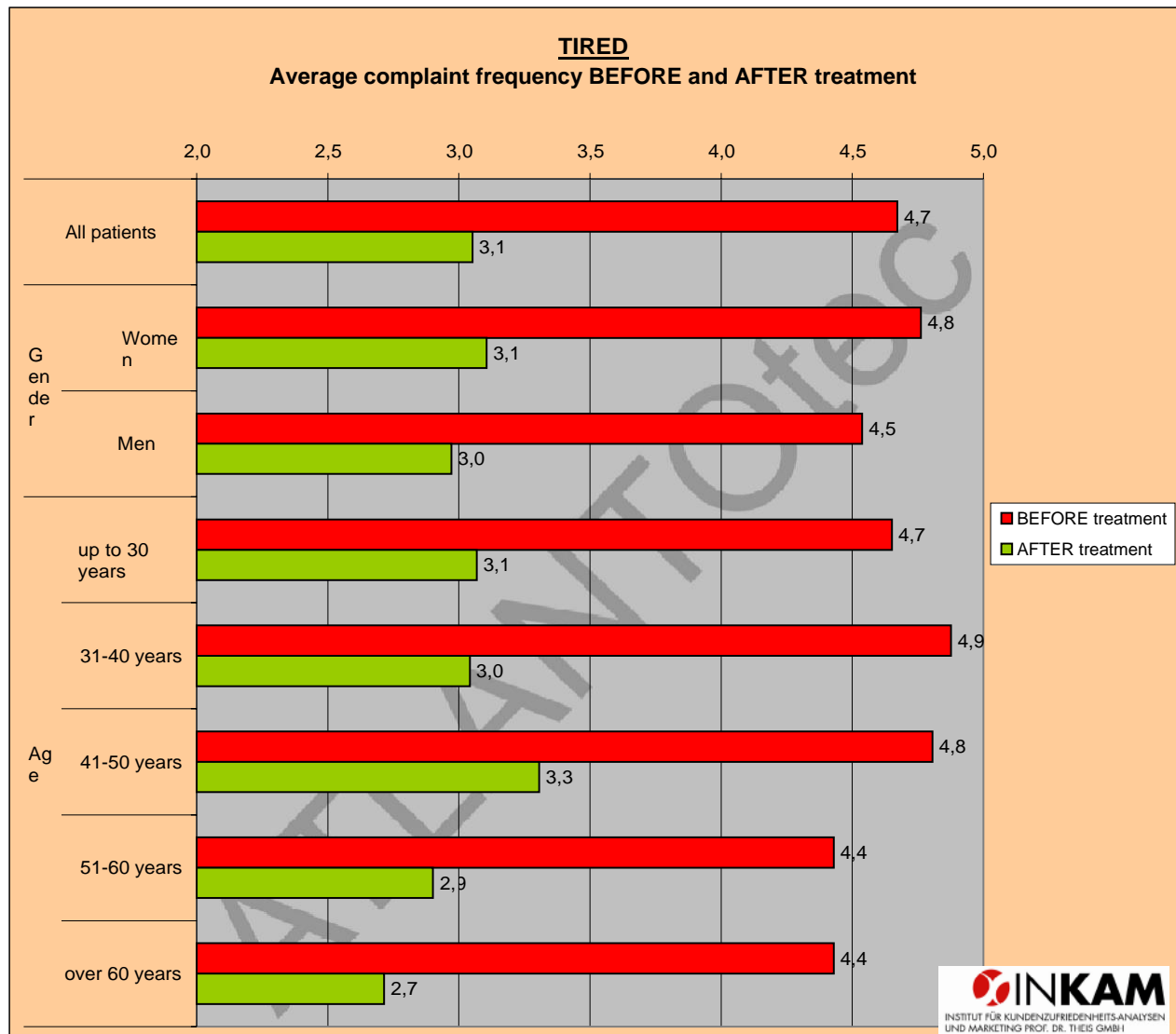
The question is therefore, what is the effect of the correction of the atlas in the case of different complaint intensities (complaint frequency and severity) in the complaint field of tension.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **5% of** all respondents. For **26%, the** frequency of complaints was reduced by one level, for **32% by** two levels, for **24% by** three levels and for **12% by** four levels. Consequently, 12% of all level 5 patients are free of complaints (no/no significant complaints).

TENSIONS
Treatment success as a function of complaint frequency and severity
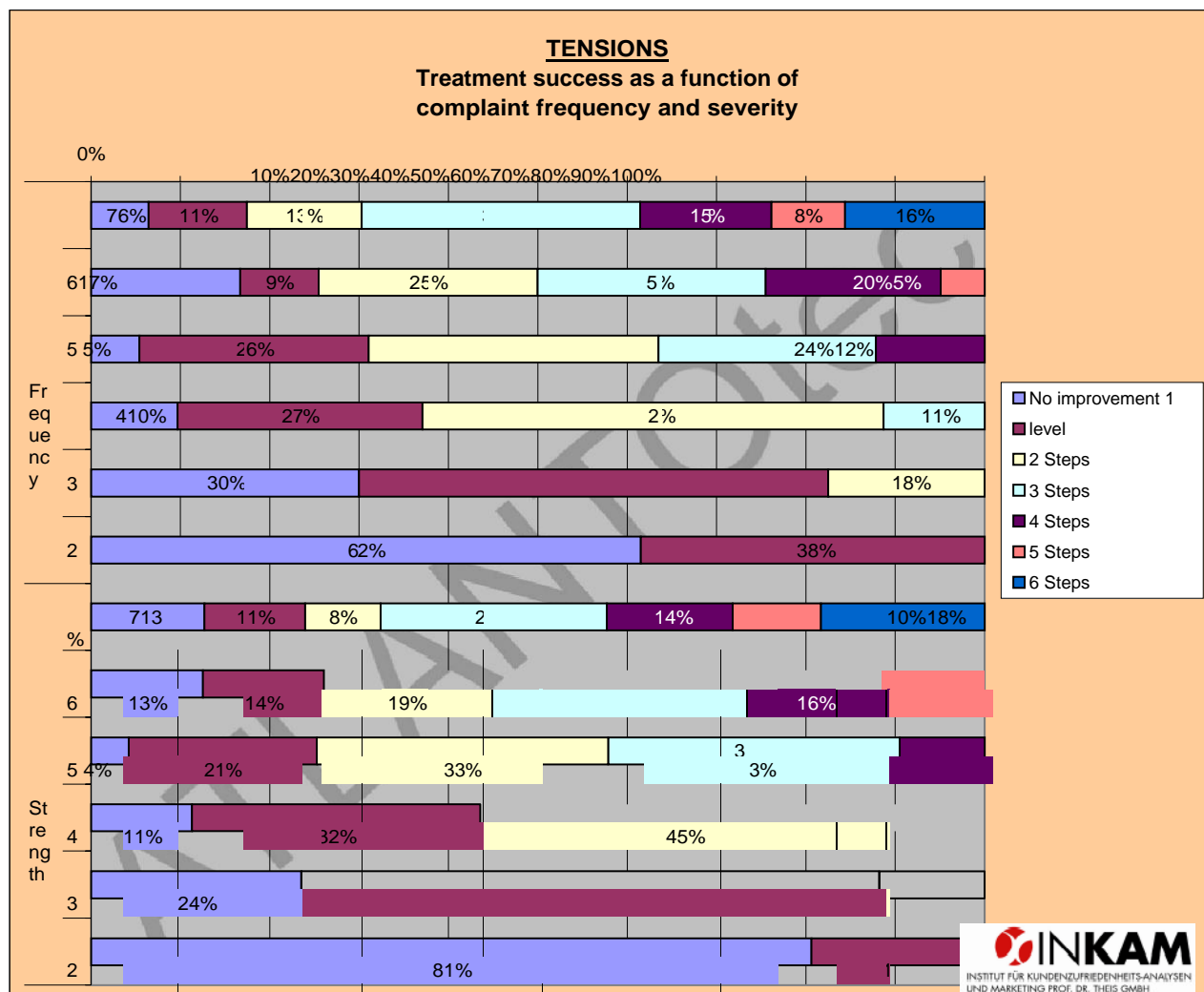
## 5.3.4 Average frequency of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of complaints of *tension* has changed on average over all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.
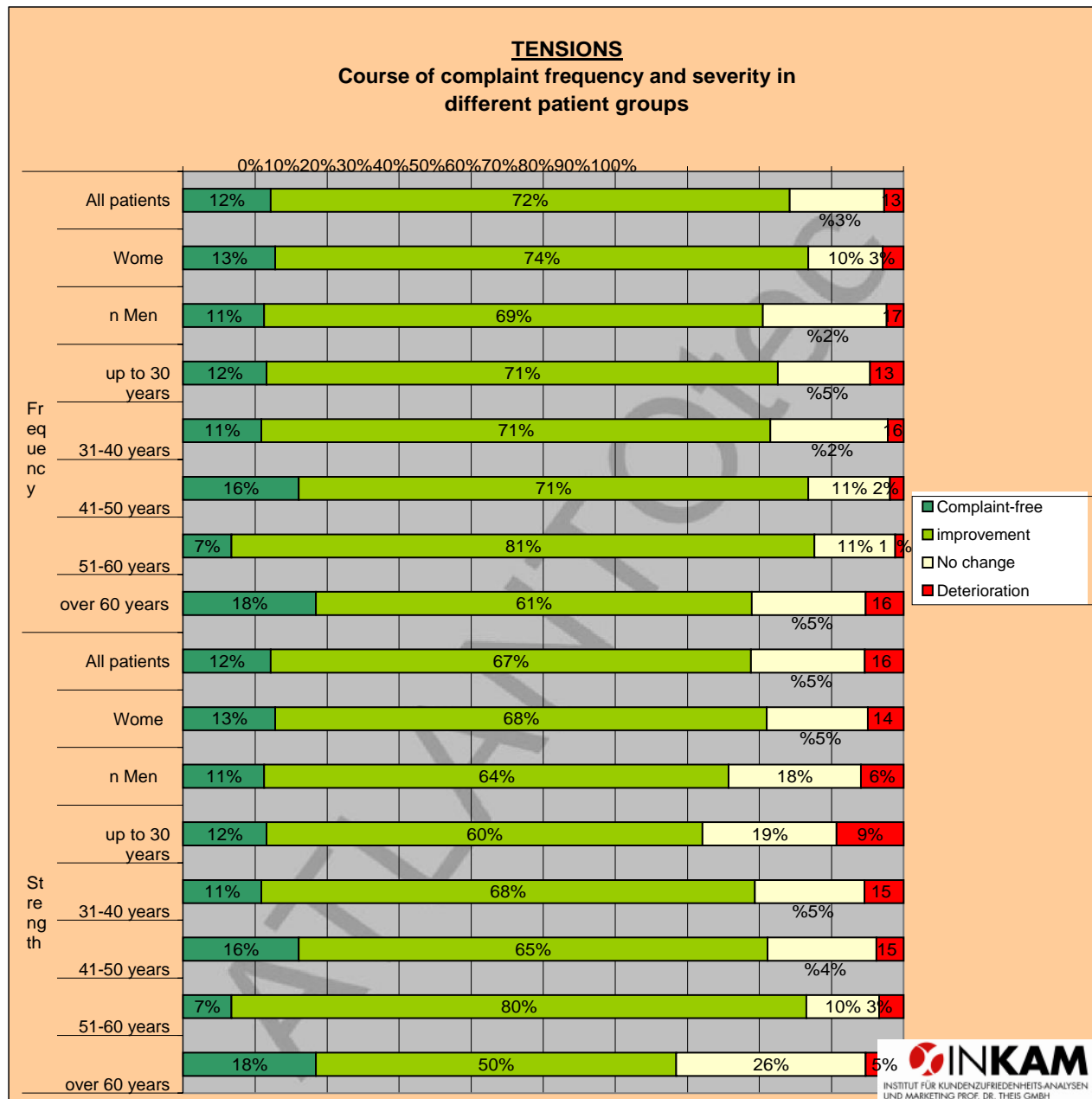

TENSIONS
Average complaint frequency BEFORE and AFTER treatment

Group		BEFORE treatment	AFTER treatment
All patients			3,1
Gender	Women		3,2
	Men	5,0	3,1
Age	up to 30 years		3,2
	31-40 years		3,1
	41-50 years		3,2
	51-60 years		3,2
	over 60 years		3,0
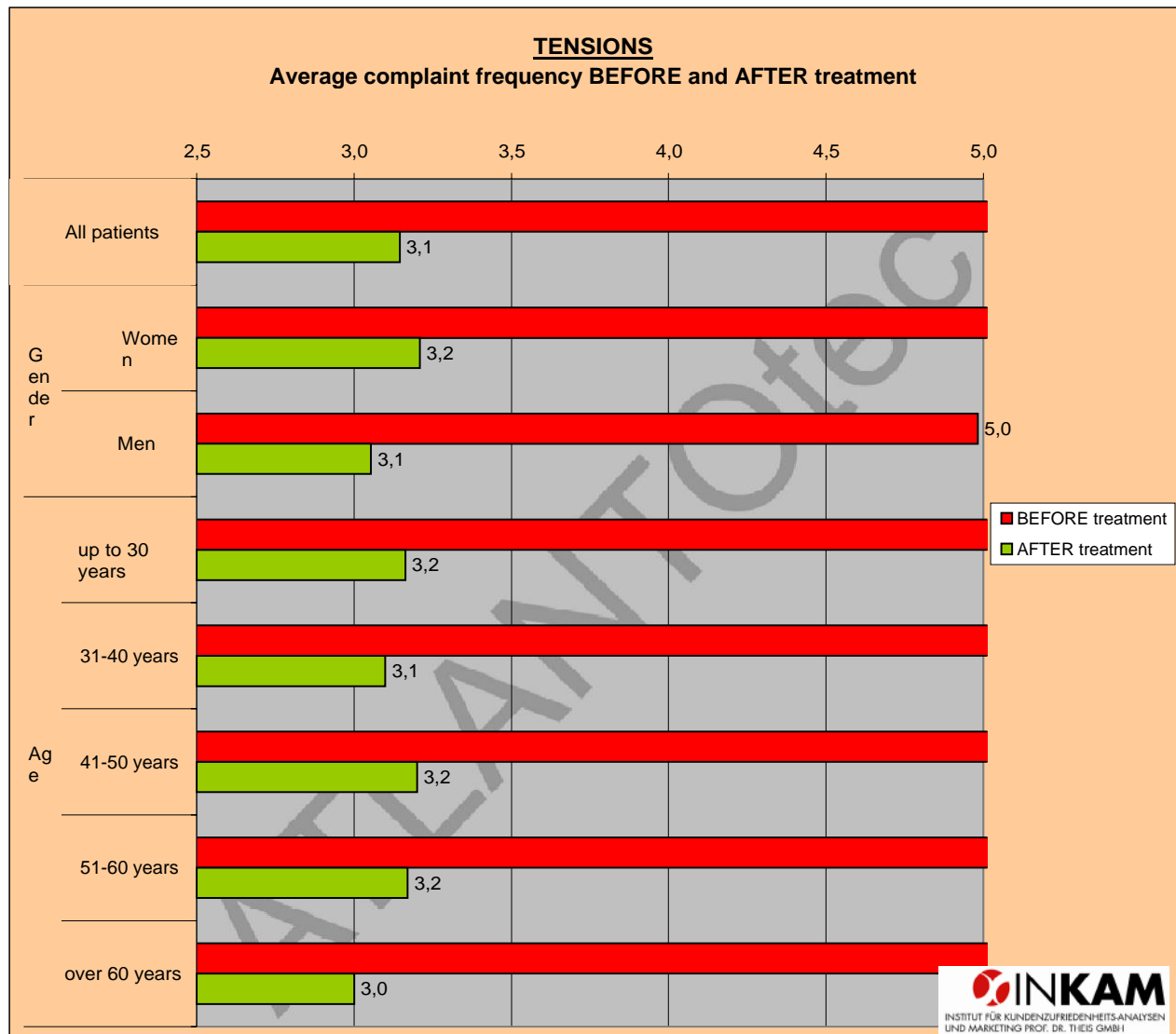
5.3.5 Average complaint severity BEFORE and AFTER the treatment

The following graph shows - differentiated according to the various patient groups - how the severity of *tension* complaints changed on average across all patients (with complaints before treatment) as a result of the *ATLANTOtec*® treatment.

TENSIONS
Average severity of complaints BEFORE and AFTER treatment

Group		BEFORE treatment	AFTER treatment
All patients		5,0	3,0
Gender	Women		3,1
	Men	4,7	3,0
Age	up to 30 years	4,8	3,1
	31-40 years	4,9	3,0
	41-50 years		3,0
	51-60 years		3,0
	over 60 years	4,9	3,1
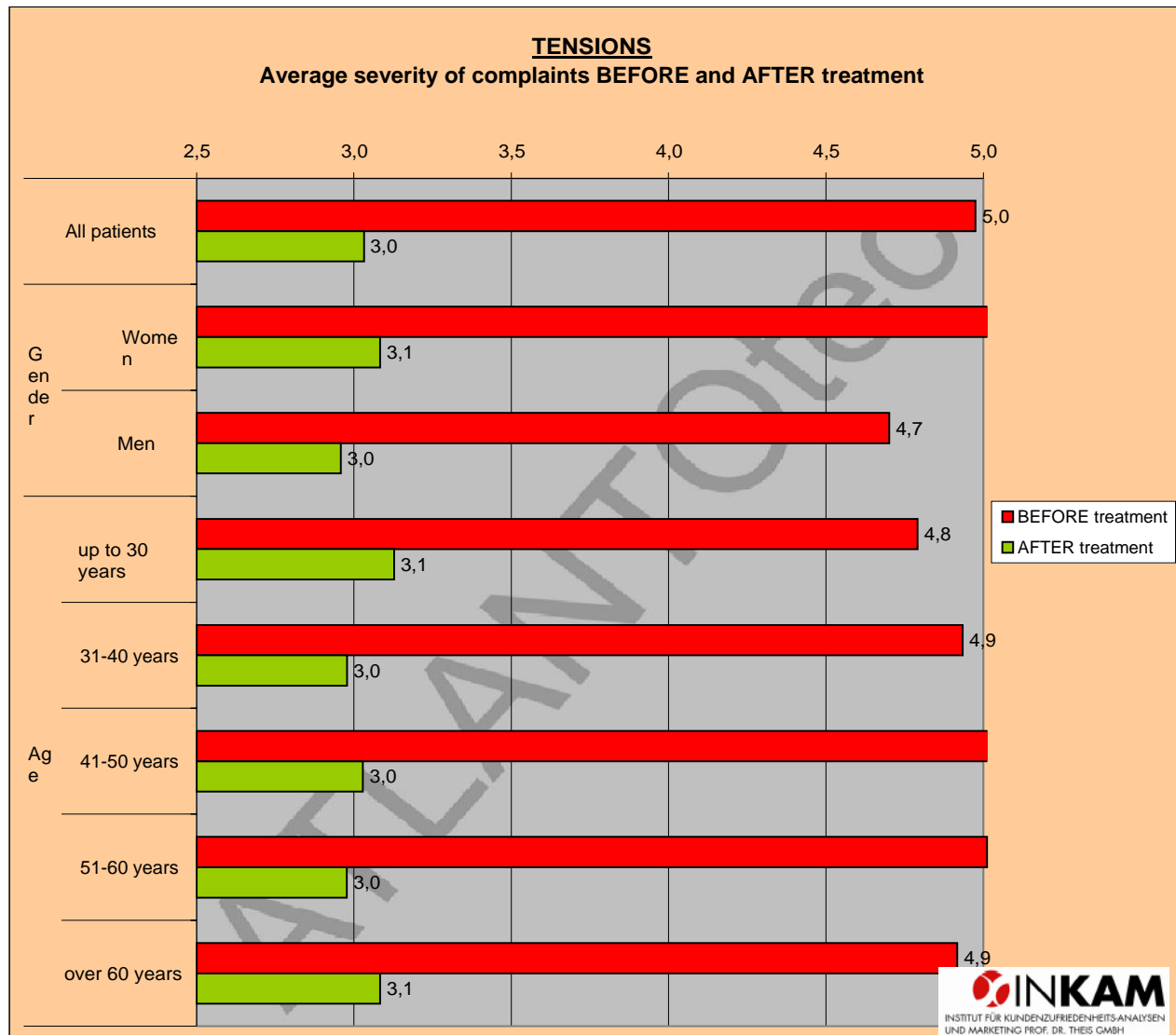
5.4 Headache

5.4.1 Complaint status at the beginning of the treatment

The following graph shows what proportion of patients - differentiated according to the various patient groups - suffered from headaches before treatment.
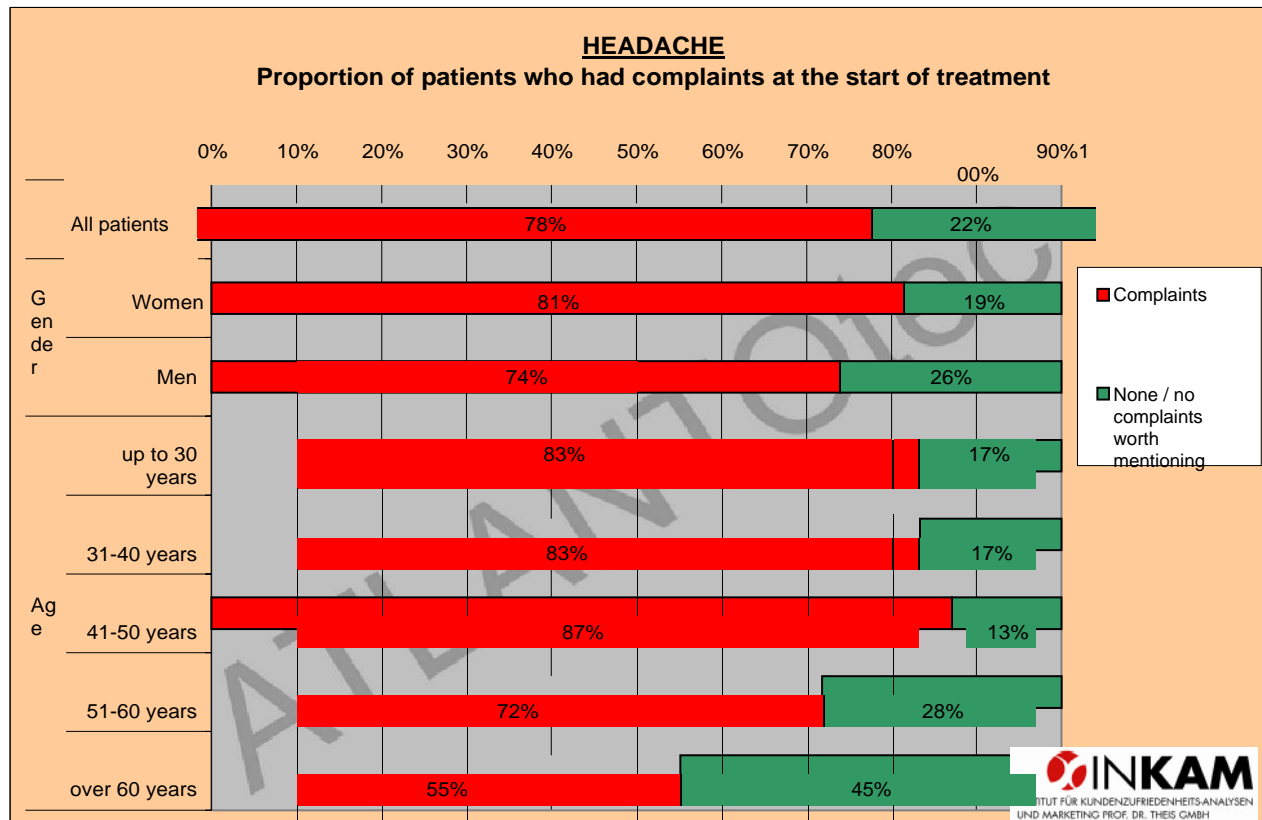
5.4.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of severity and frequency for those patients who complained of headaches at the beginning (scale levels 2-7 for frequency and/or severity) and have undergone the *ATLANTOtec*®
- have undergone treatment.

HEADACHE
Course of complaint frequency and severity in different patient groups

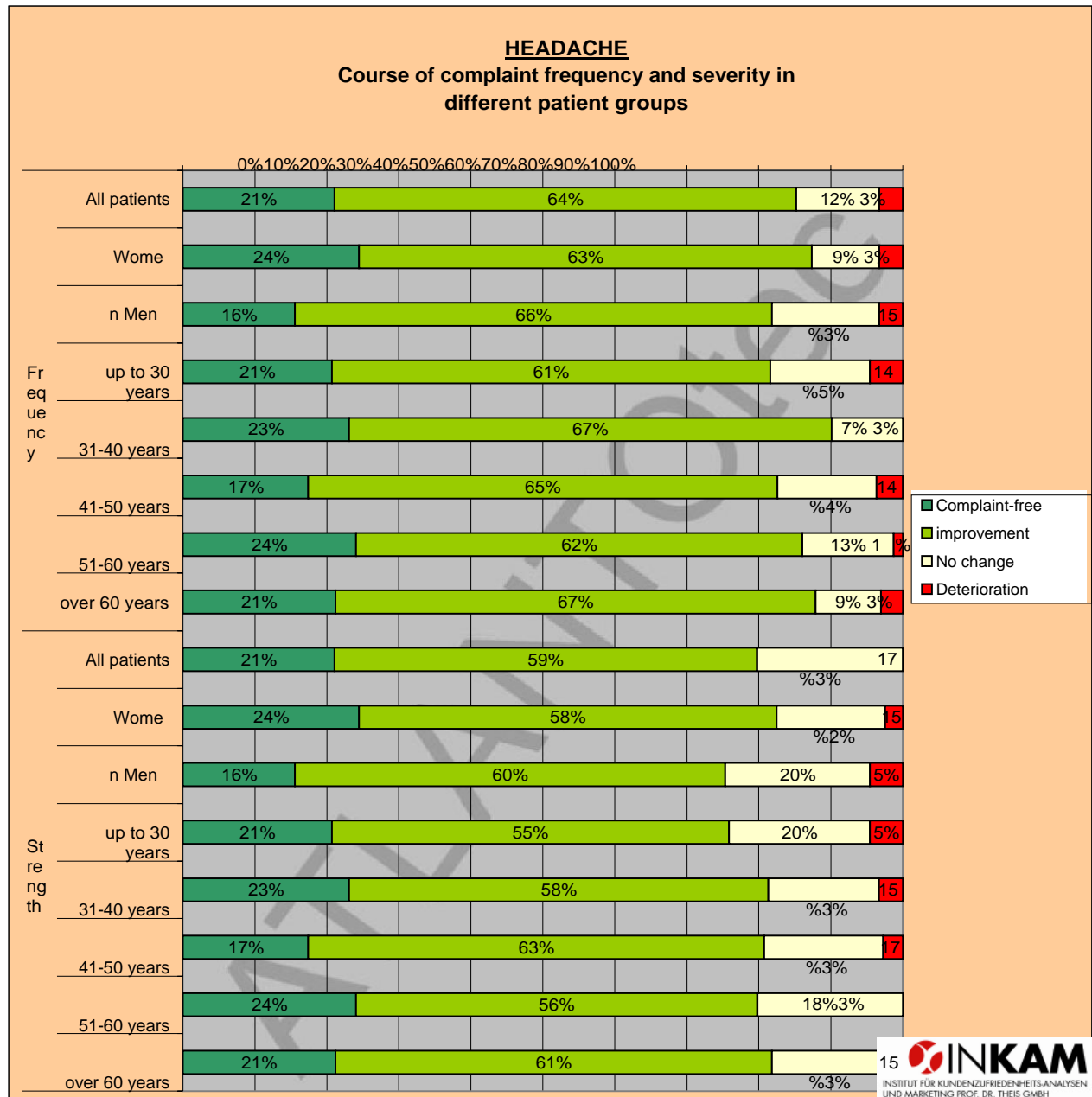| Group	Complaint-free	improvement	No change	Deterioration
Frequency All patients	21%	64%	12%	3%
Wome	24%	63%	9%	3%
n Men	16%	66%	15%3%	
up to 30 years	21%	61%	14%5%	
31-40 years	23%	67%	7%	3%
41-50 years	17%	65%	14%4%	
51-60 years	24%	62%	13%	1%
over 60 years	21%	67%	9%	3%
Strength All patients	21%	59%	17%3%	
Wome	24%	58%	15%2%	
n Men	16%	60%	20%	5%
up to 30 years	21%	55%	20%	5%
31-40 years	23%	58%	15%3%	
41-50 years	17%	63%	17%3%	
51-60 years	24%	56%	18%3%	
over 60 years	21%	61%	15%3%	

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.4.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of headaches.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **6% of** all respondents. For **12%, the** frequency of complaints was reduced by one level, for **26% by** two levels, for **42%** by three levels and for **14% by** four levels. Consequently, 14% of all level 5 patients are free of complaints (no/no significant complaints).
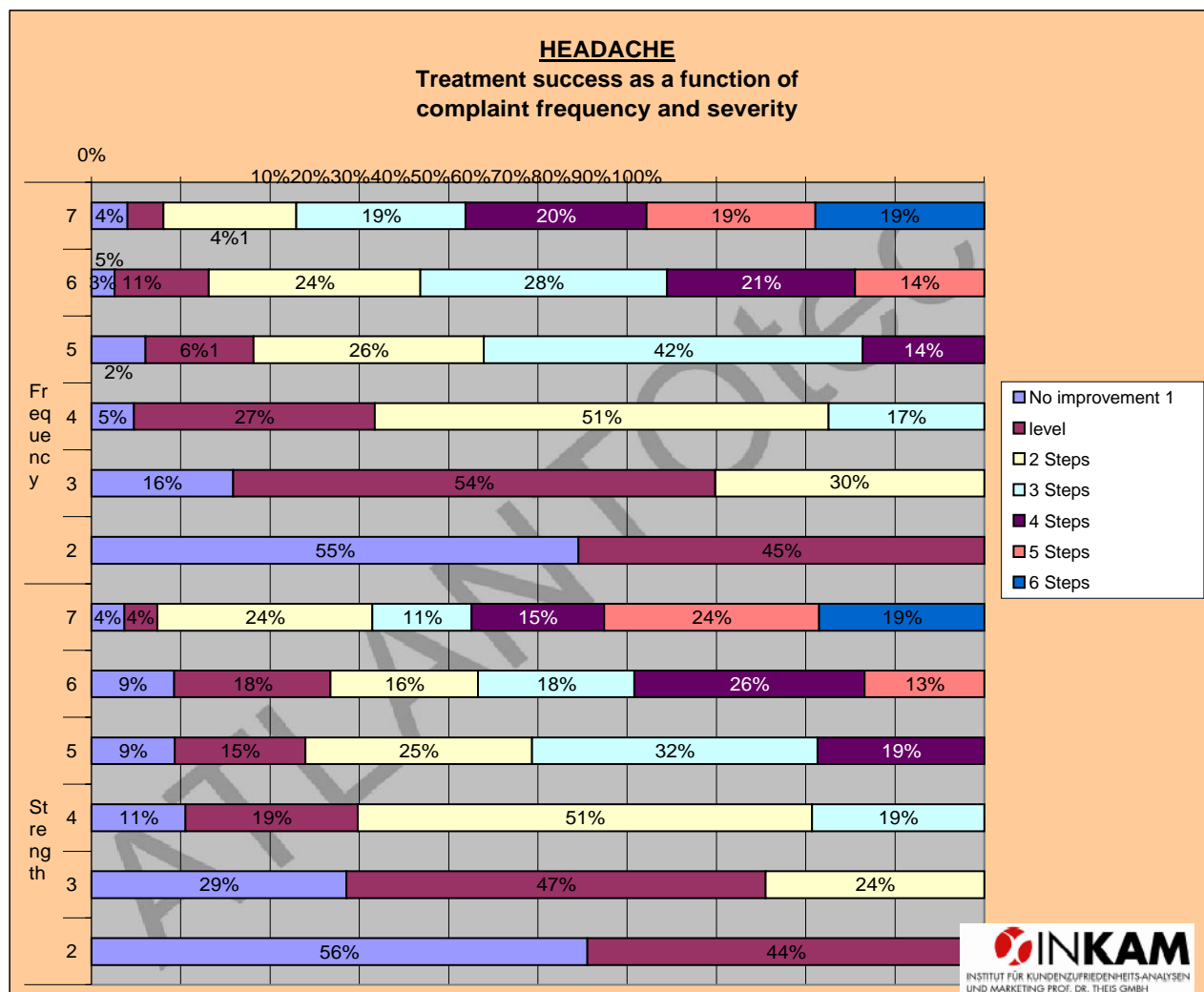
5.4.4 Average frequency of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of *headache* complaints changed on average across all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

HEADACHE
Average complaint frequency BEFORE and AFTER treatment

Patient group	BEFORE treatment	AFTER treatment
All patients	4,7	2,5
Gender – Women	4,9	2,5
Gender – Men	4,4	2,5
Age – up to 30 years	4,7	2,6
Age – 31-40 years	4,9	2,3
Age – 41-50 years	4,9	2,8
Age – 51-60 years	4,4	2,5
Age – over 60 years	4,7	2,2
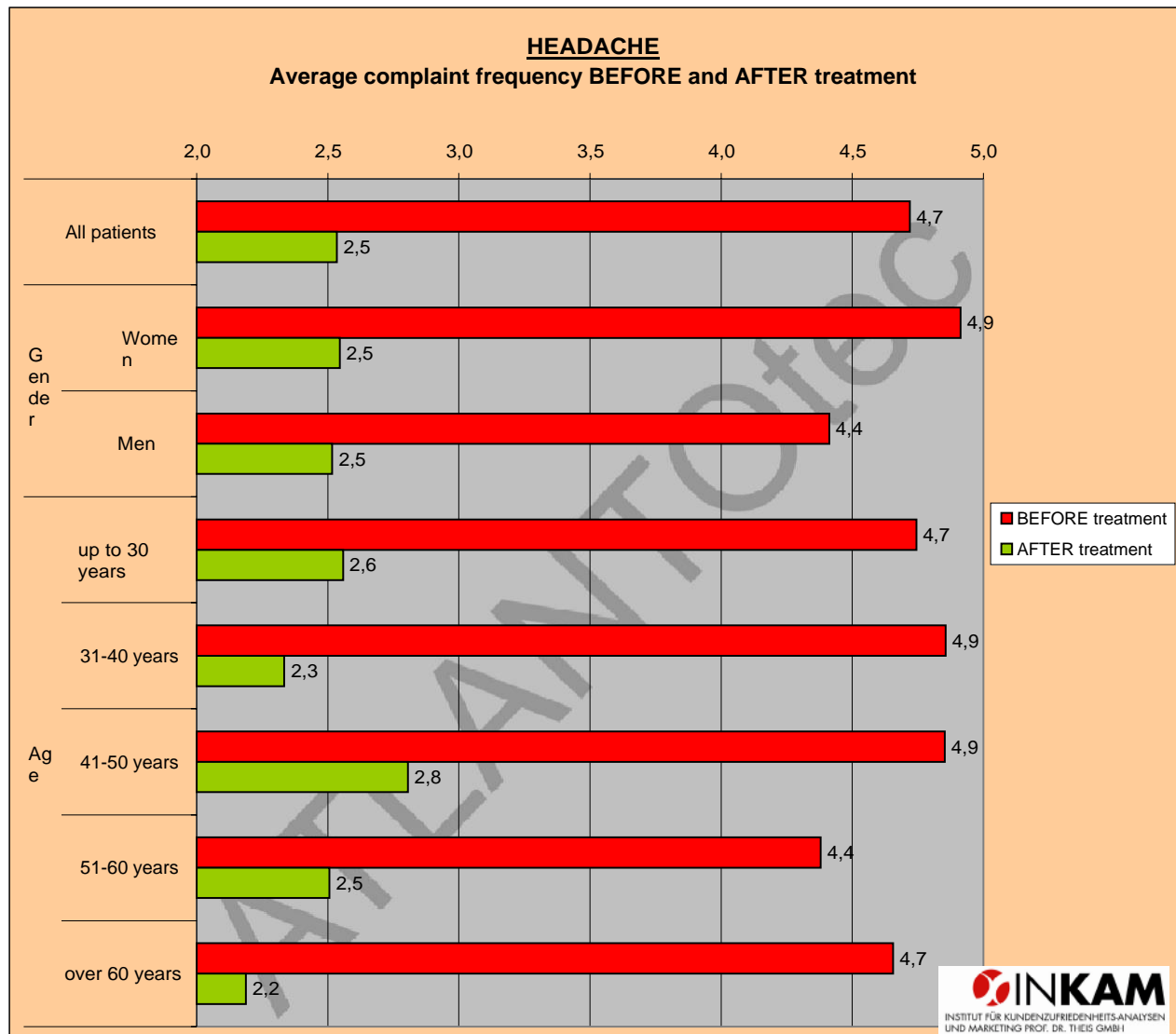
5.4.5 Average complaint severity BEFORE and AFTER the treatment

The following graph shows - differentiated according to the various patient groups - how the severity of **headache complaints** changed on average across all patients (with complaints before treatment) as a result of the *ATLANTOtec*® treatment.

HEADACHE
Average severity of complaints BEFORE and AFTER treatment

Group	BEFORE treatment	AFTER treatment
All patients	4,7	2,6
Gender Women	4,8	2,6
Men	4,5	2,7
Age up to 30 years	4,7	2,8
31-40 years	4,8	2,5
41-50 years	4,9	2,8
51-60 years	4,4	2,7
over 60 years	4,2	2,2
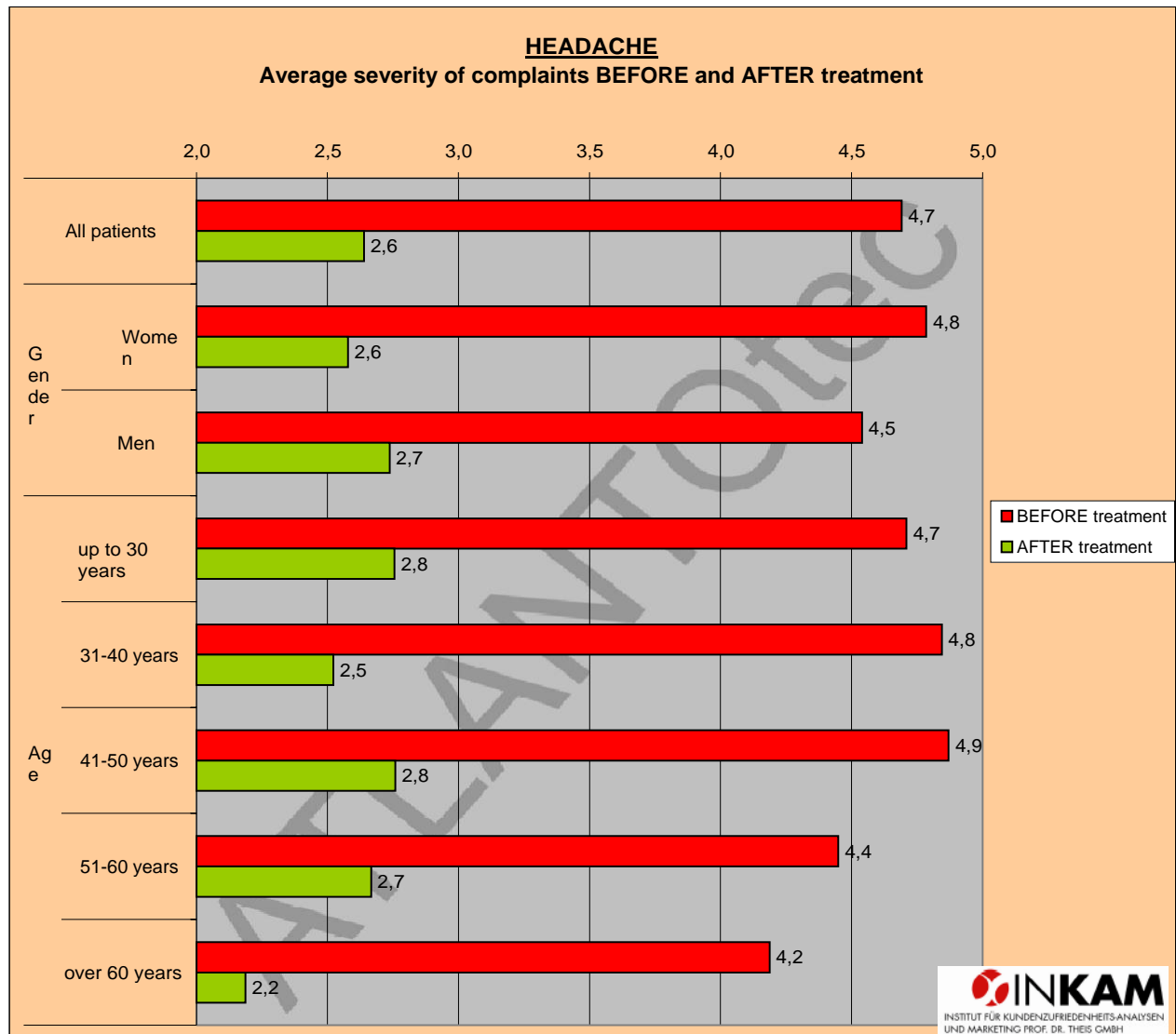
5.5 Low back pain

5.5.1 Complaint status at the beginning of the treatment

The following graph shows what proportion of patients - differentiated according to the various patient groups - suffered from low back pain before treatment.

CROSS COMPLAINTS
Proportion of patients who had complaints at the start of treatment

Group	Complaints	None / no complaints worth mentioning
All patients	79%	21%
Gender – Women	75%	25%
Gender – Men	84%	16%
Age – up to 30 years	72%	8%
Age – 31-40 years	82%	18%
Age – 41-50 years	85%	15%
Age – 51-60 years	79%	21%
Age – over 60 years	71%	29%
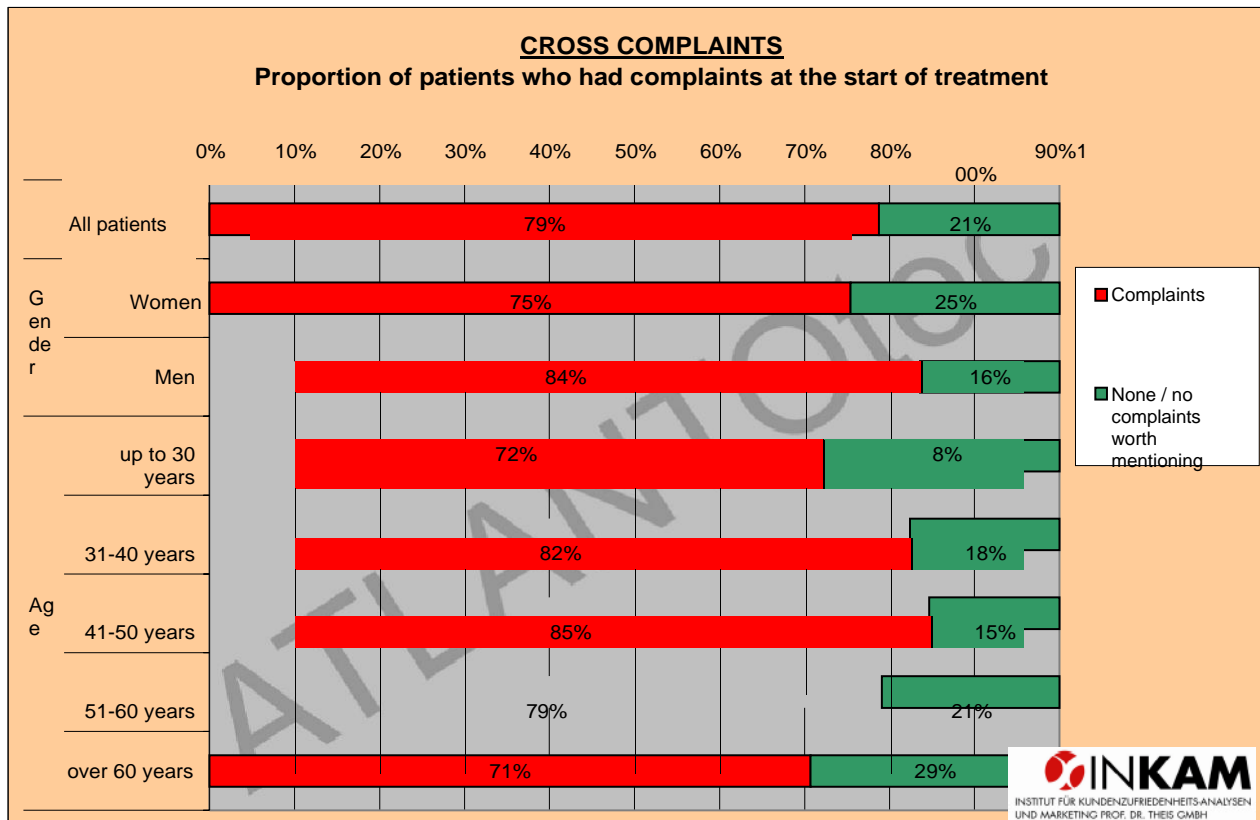
5.5.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of <u>severity and frequency for</u> those patients who complained of cross complaints at the beginning (scale levels 2-7 for frequency and/or severity) and have undergone the *ATLANTOtec*®
- have undergone treatment.

CROSS COMPLAINTS
Course of complaint frequency and severity in different patient groups

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.5.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of low back complaints.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **14% of** all respondents. For **14%, the** frequency of complaints was reduced by one level, for **39% by** two levels, for **24%** by three levels and for **8% by** four levels. Consequently, 8% of all level 5 patients are free of complaints (no/no significant complaints).

CROSS COMPLAINTS
Treatment success as a function of complaint frequency and severity
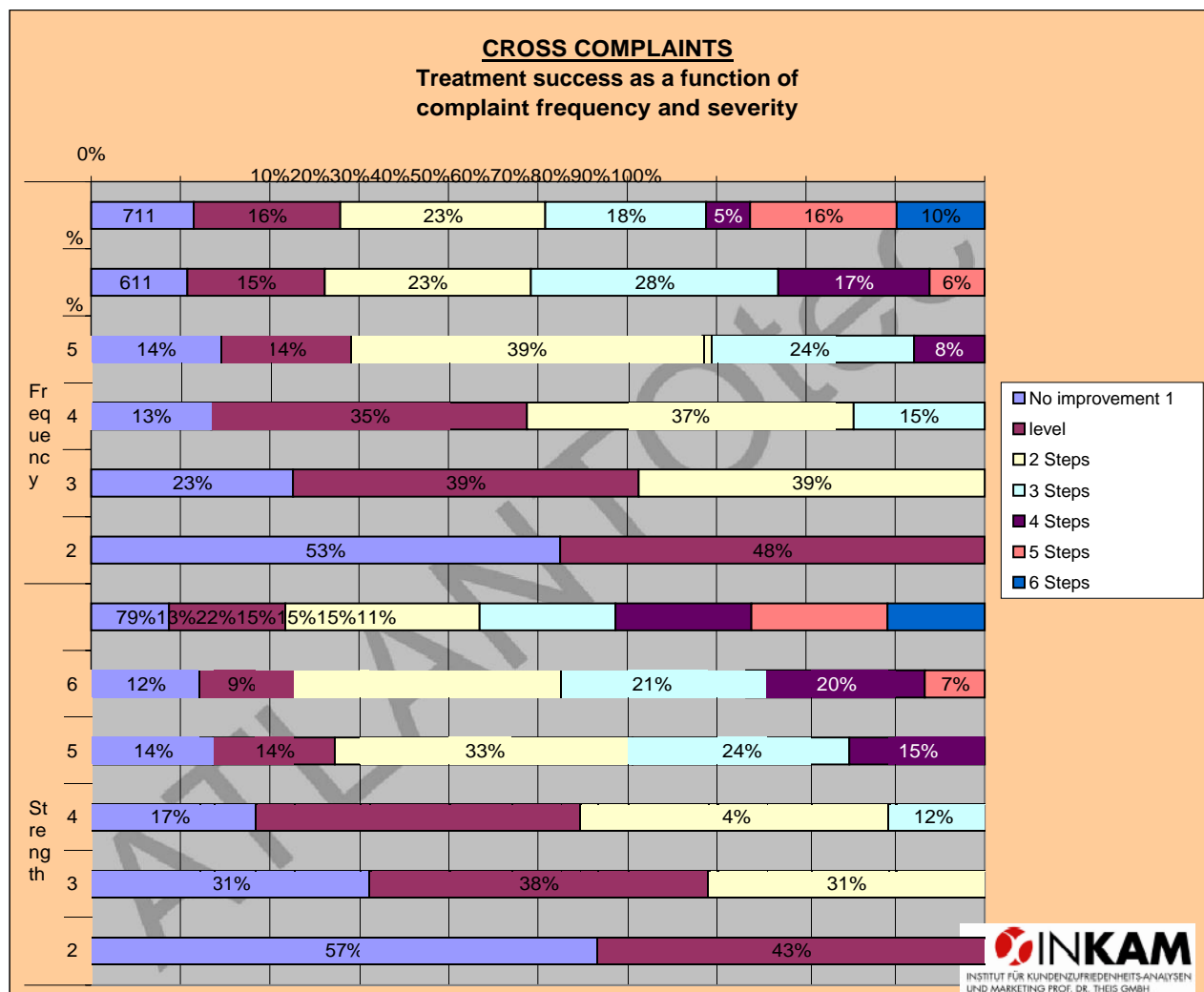
5.5.4 Average frequency of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of complaints of *low back pain* has changed on average over all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

CROSS COMPLAINTS
Average complaint frequency BEFORE and AFTER treatment

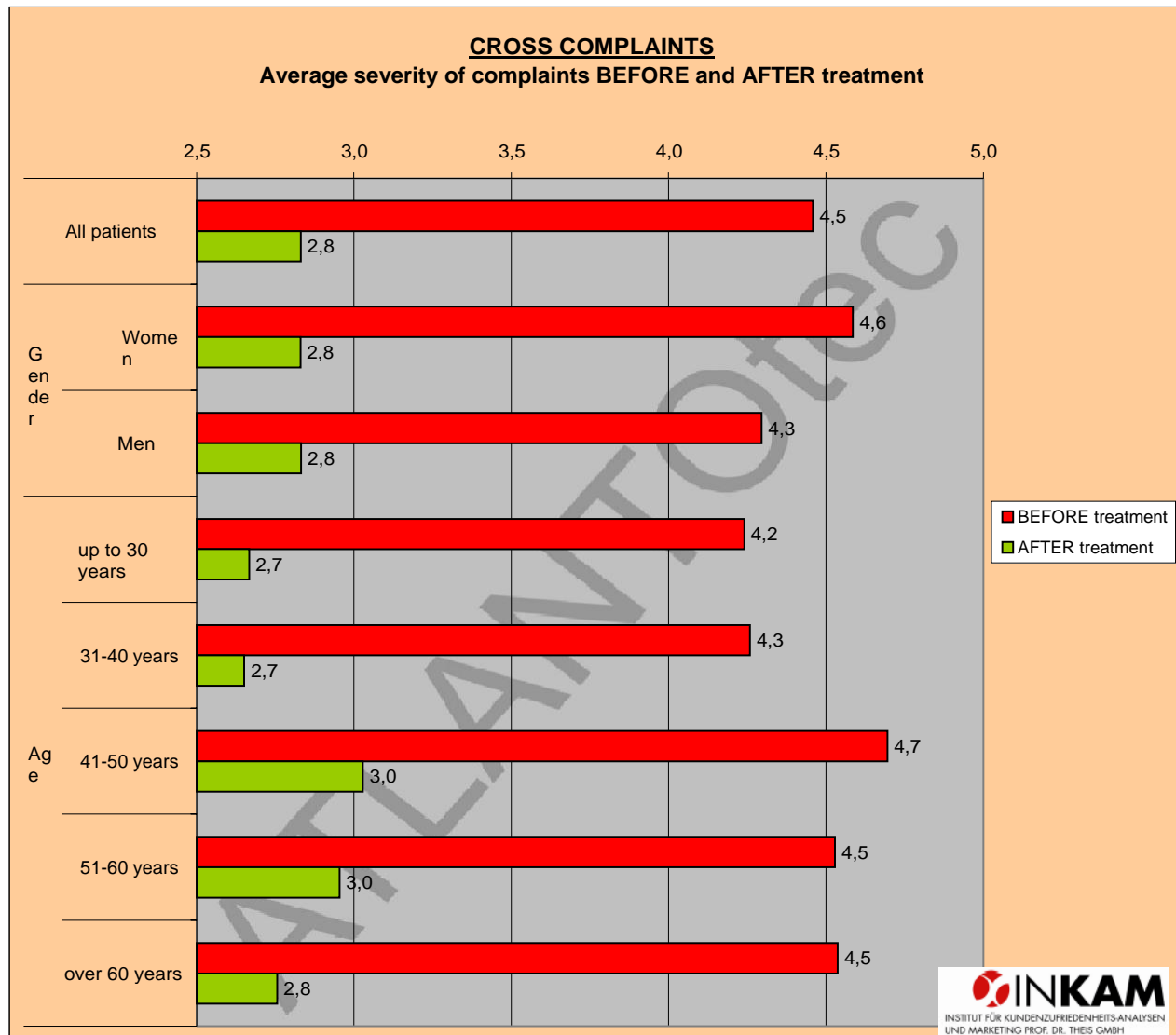| Patient group	BEFORE treatment	AFTER treatment
All patients	4,6	2,9
Gender – Women	4,7	2,9
Gender – Men	4,4	2,9
Age – up to 30 years	4,4	2,8
Age – 31-40 years	4,3	2,6
Age – 41-50 years	4,8	3,0
Age – 51-60 years	4,7	3,1
Age – over 60 years	4,7	2,9
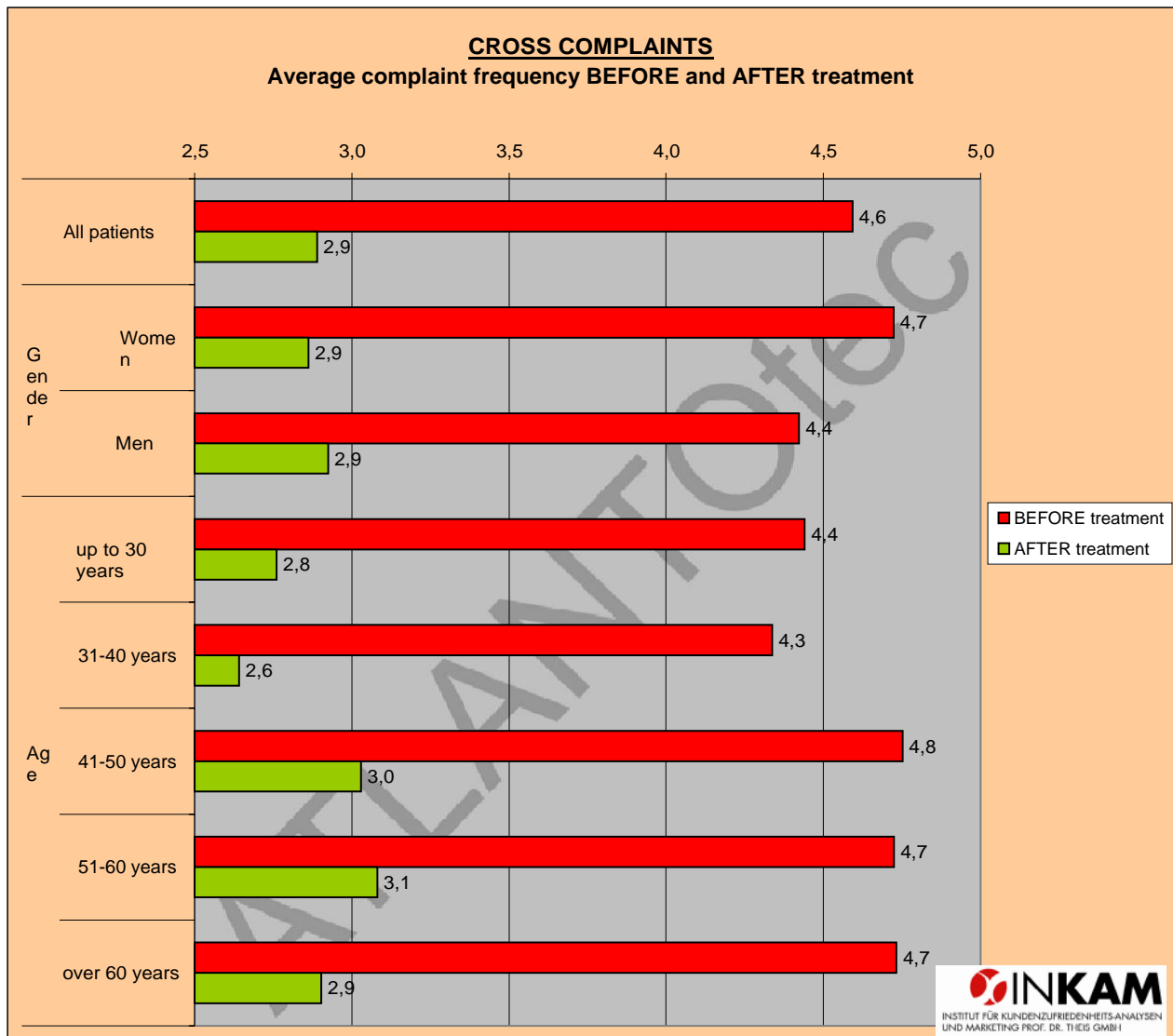
5.5.5 Average complaint severity BEFORE and AFTER the treatment

The following graph shows - differentiated according to the various patient groups - how the severity of **low back pain complaints** has changed on average across all patients (with complaints before treatment) as a result of the *ATLANTOtec*® treatment.

CROSS COMPLAINTS
Average severity of complaints BEFORE and AFTER treatment

Group	BEFORE treatment	AFTER treatment
All patients	4,5	2,8
Gender — Women	4,6	2,8
Gender — Men	4,3	2,8
Age — up to 30 years	4,2	2,7
Age — 31-40 years	4,3	2,7
Age — 41-50 years	4,7	3,0
Age — 51-60 years	4,5	3,0
Age — over 60 years	4,5	2,8

5.6 Shoulder complaints

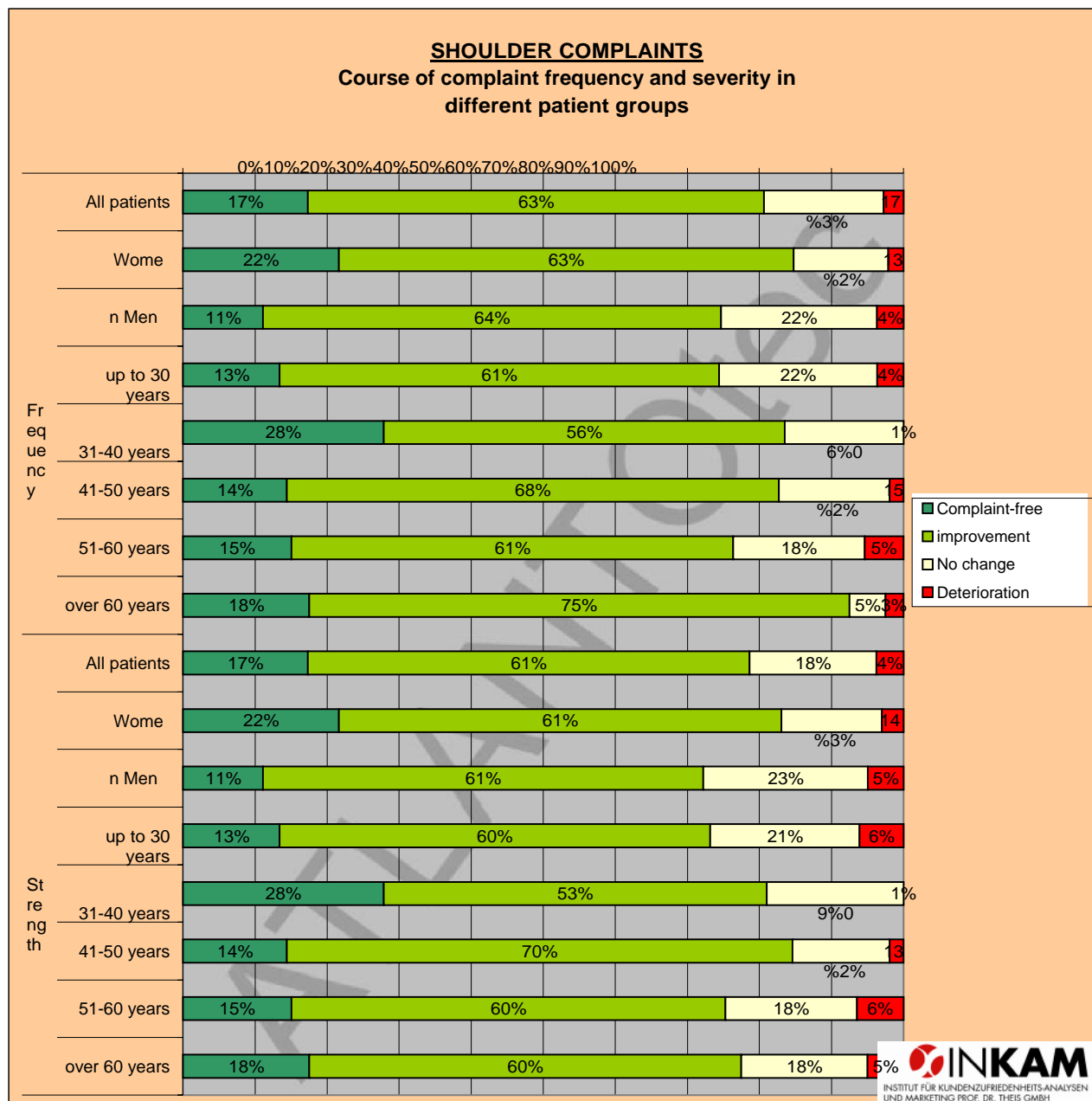### 5.6.1 Complaint status at the beginning of the treatment

The following graph shows what proportion of patients - differentiated according to the various patient groups - suffered from shoulder complaints before treatment.
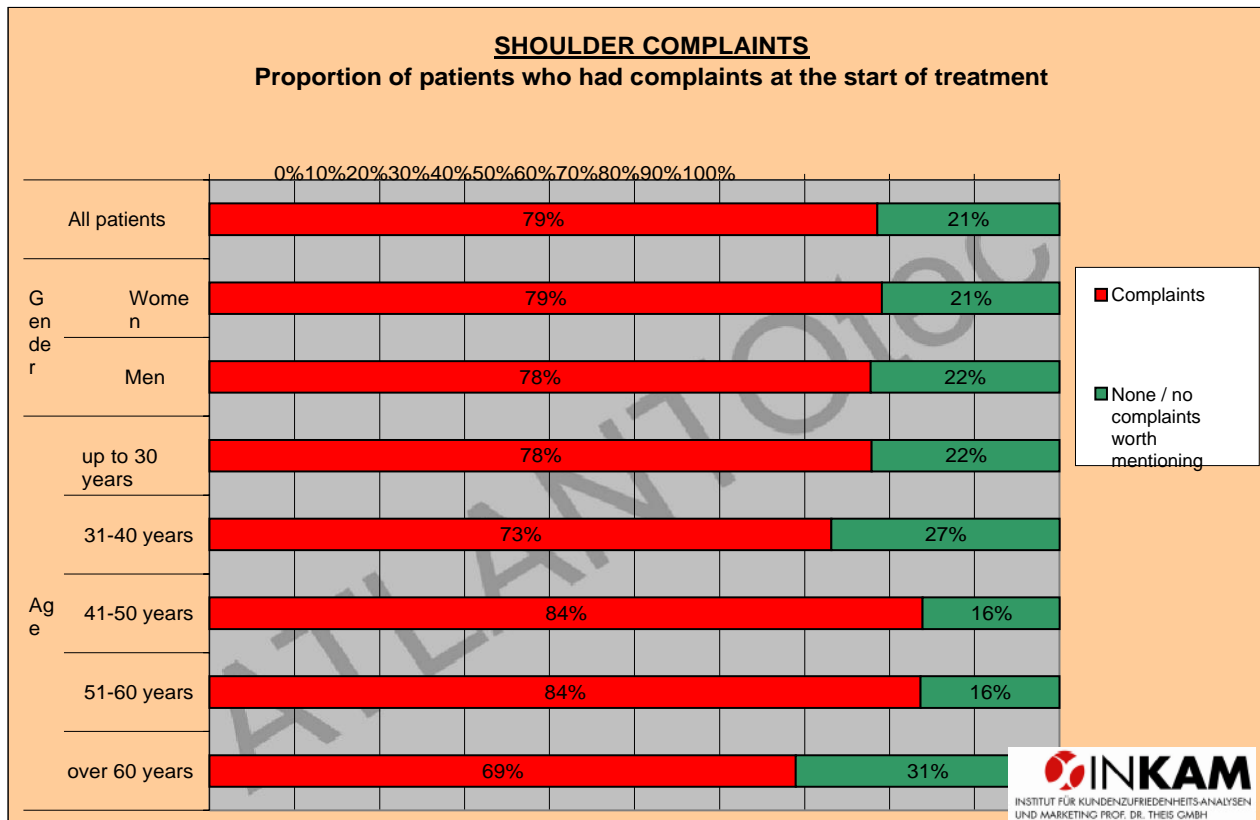
5.6.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of severity and frequency in those patients who complained about shoulder complaints at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the ATLANTO- tec® treatment.
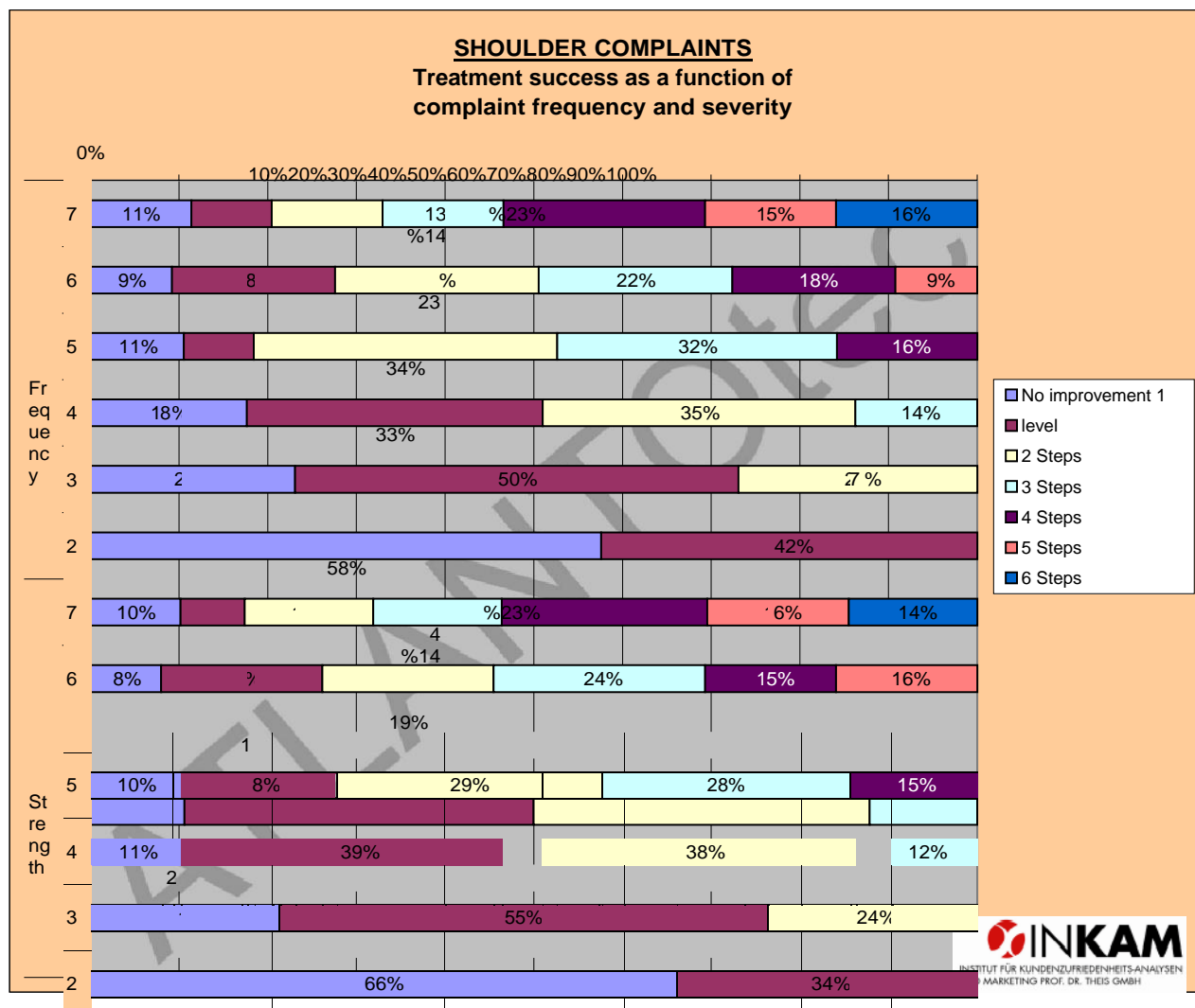

SHOULDER COMPLAINTS
Course of complaint frequency and severity in different patient groups

Group	Complaint-free	improvement	No change	Deterioration
Frequency				
All patients	17%	63%		17 / 3%
Women	22%	63%		13 / 2%
Men	11%	64%	22%	4%
up to 30 years	13%	61%	22%	4%
31-40 years	28%	56%	6%	1% / 0
41-50 years	14%	68%		15 / 2%
51-60 years	15%	61%	18%	5%
over 60 years	18%	75%	5% / 3%	
Strength				
All patients	17%	61%	18%	4%
Women	22%	61%		14 / 3%
Men	11%	61%	23%	5%
up to 30 years	13%	60%	21%	6%
31-40 years	28%	53%	9%	1% / 0
41-50 years	14%	70%		13 / 2%
51-60 years	15%	60%	18%	6%
over 60 years	18%	60%	18%	5%

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.6.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of shoulder complaints.
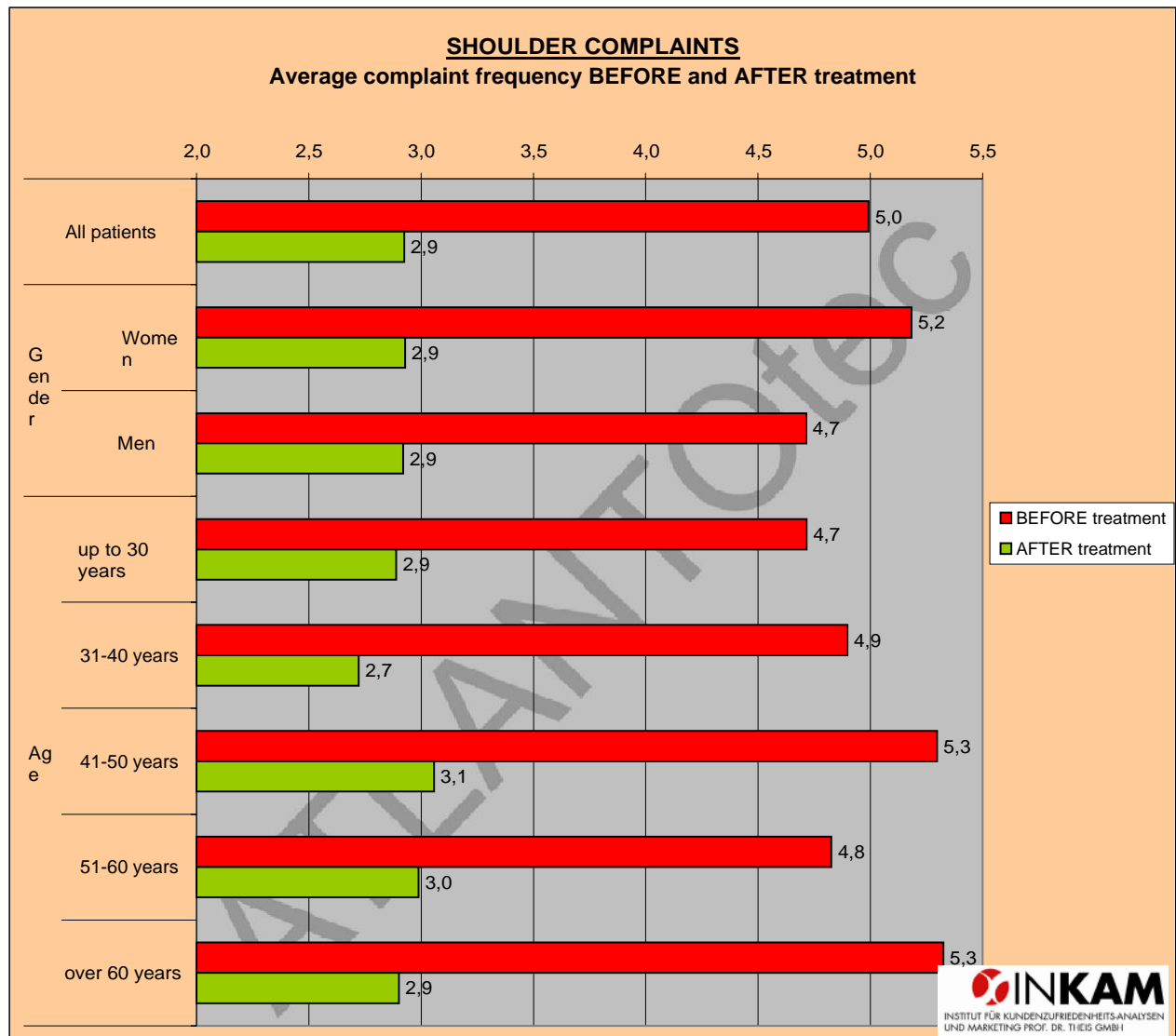
The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **11% of** all respondents. For **8%, the** frequency of complaints was reduced by one level, for **34% by** two levels, for **32%** by three levels and for **16% by** four levels. Consequently, 16% of all level 5 patients are free of complaints (no/no significant complaints).

SHOULDER COMPLAINTS
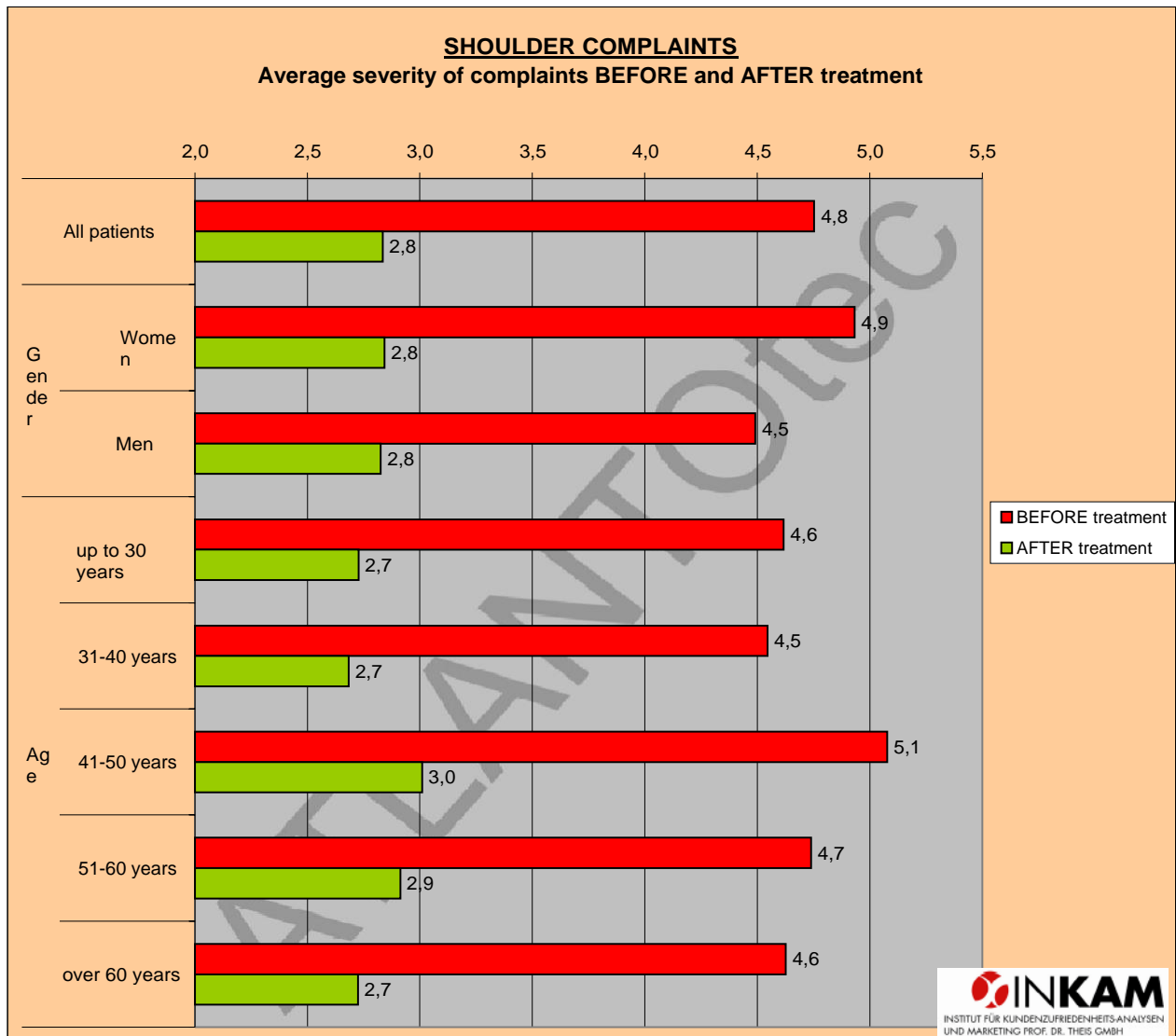**Treatment success as a function of complaint frequency and severity**

5.6.4 Average frequency of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of **shoulder complaints** has changed on average for all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

SHOULDER COMPLAINTS
Average complaint frequency BEFORE and AFTER treatment

Patient group	BEFORE treatment	AFTER treatment
All patients	5,0	2,9
Gender – Women	5,2	2,9
Gender – Men	4,7	2,9
Age – up to 30 years	4,7	2,9
Age – 31-40 years	4,9	2,7
Age – 41-50 years	5,3	3,1
Age – 51-60 years	4,8	3,0
Age – over 60 years	5,3	2,9

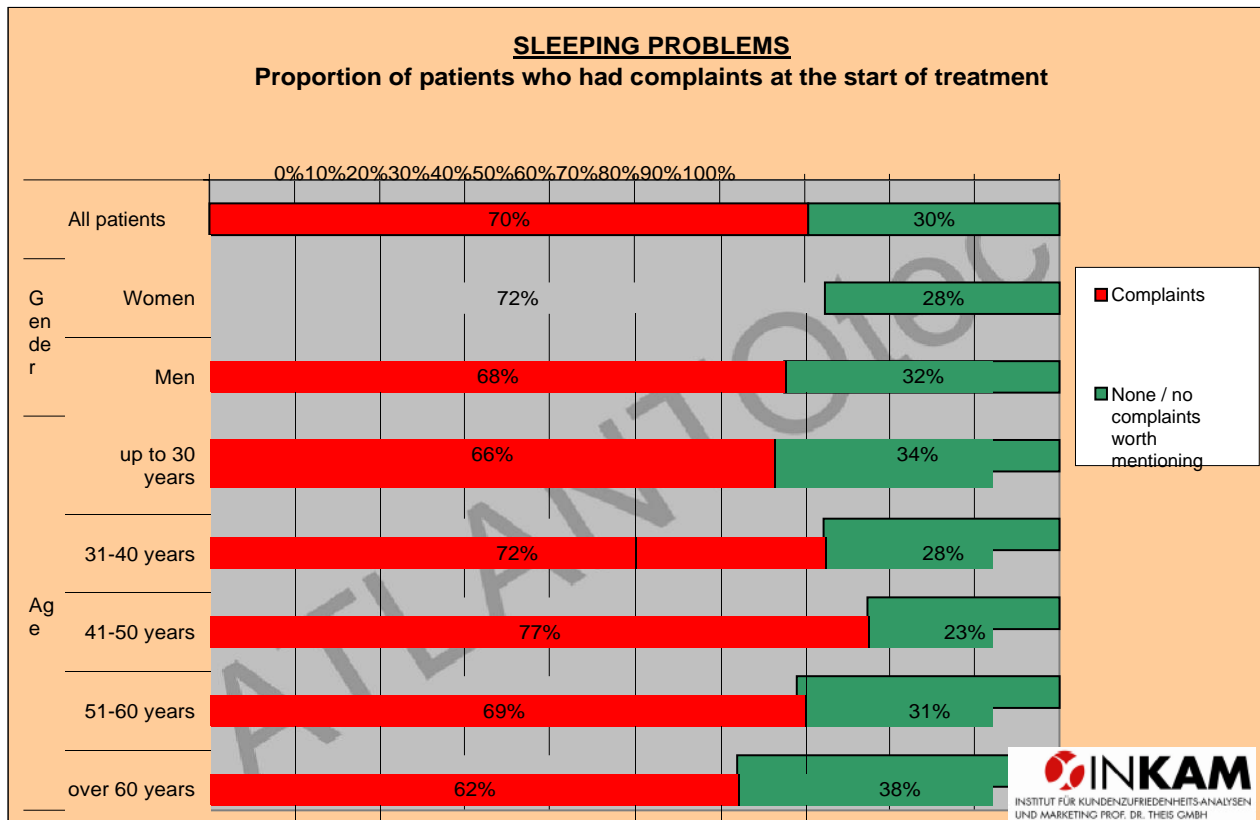## 5.6.5 Average complaint severity BEFORE and AFTER the treatment

The following graph shows - differentiated according to the various patient groups - how the severity of *shoulder complaints* has changed on average across all patients (with complaints before treatment) as a result of the *ATLANTOtec*® treatment.

SHOULDER COMPLAINTS
Average severity of complaints BEFORE and AFTER treatment

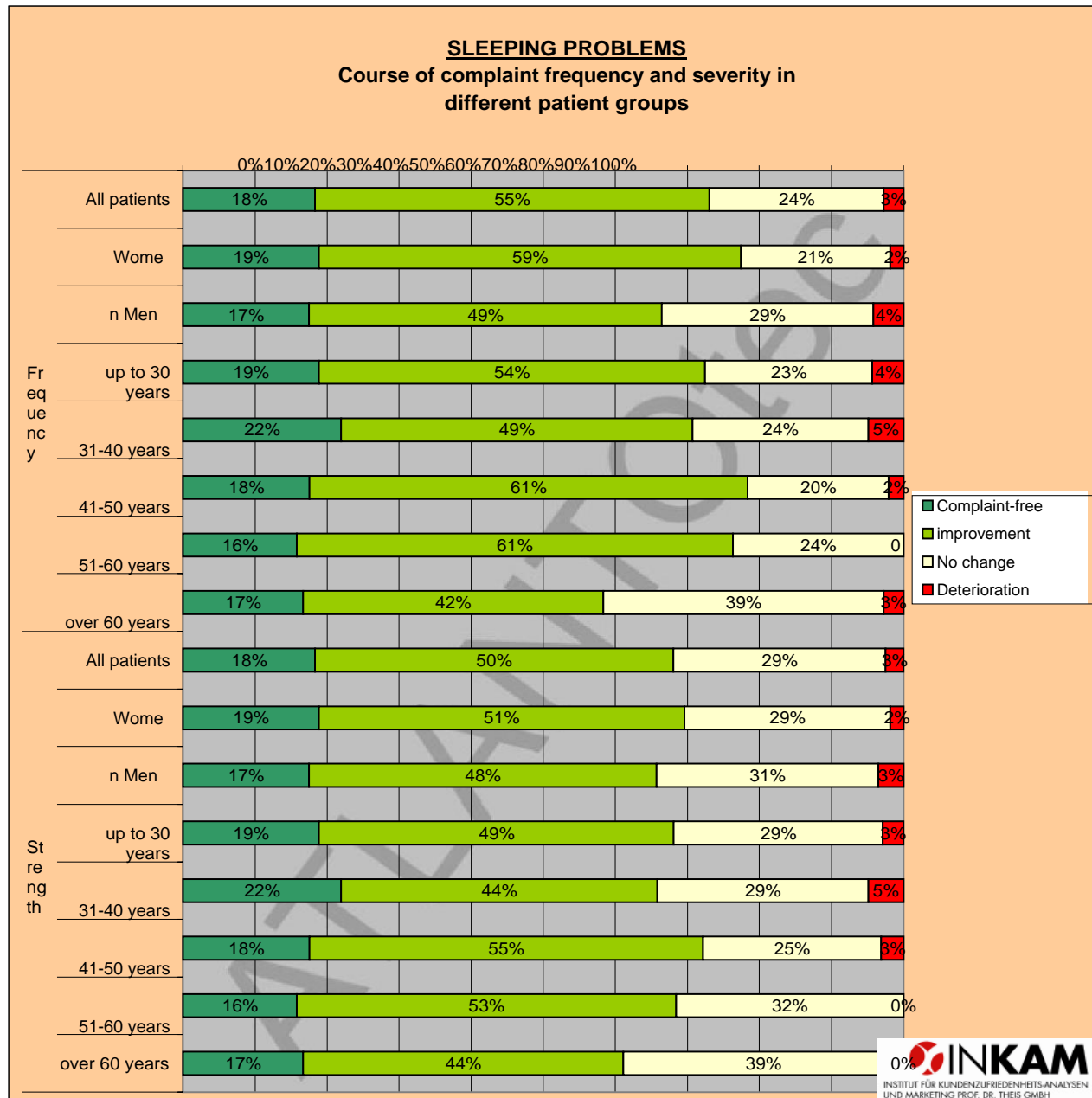| Group	BEFORE treatment	AFTER treatment
All patients	4,8	2,8
Gender – Women	4,9	2,8
Gender – Men	4,5	2,8
Age – up to 30 years	4,6	2,7
Age – 31-40 years	4,5	2,7
Age – 41-50 years	5,1	3,0
Age – 51-60 years	4,7	2,9
Age – over 60 years	4,6	2,7

5.7 Sleep complaints

5.7.1 Complaint status at the beginning of the treatment

The following graph shows what proportion of patients - differentiated according to the various patient groups - suffered from sleep problems before treatment.

SLEEPING PROBLEMS
Proportion of patients who had complaints at the start of treatment

Group		Complaints	None / no complaints worth mentioning
	All patients	70%	30%
Gender	Women	72%	28%
	Men	68%	32%
	up to 30 years	66%	34%
	31-40 years	72%	28%
Age	41-50 years	77%	23%
	51-60 years	69%	31%
	over 60 years	62%	38%

5.7.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of severity and frequency for those patients who complained of sleep problems at the beginning (scale levels 2-7 for frequency and/or severity) and who have undergone the *ATLANTOtec®*
- have undergone treatment.

		Complaint-free	improvement	No change	Deterioration
Frequency	All patients	18%	55%	24%	3%
	Wome	19%	59%	21%	2%
	n Men	17%	49%	29%	4%
	up to 30 years	19%	54%	23%	4%
	31-40 years	22%	49%	24%	5%
	41-50 years	18%	61%	20%	2%
	51-60 years	16%	61%	24%	0
	over 60 years	17%	42%	39%	3%
Strength	All patients	18%	50%	29%	3%
	Wome	19%	51%	29%	2%
	n Men	17%	48%	31%	3%
	up to 30 years	19%	49%	29%	3%
	31-40 years	22%	44%	29%	5%
	41-50 years	18%	55%	25%	3%
	51-60 years	16%	53%	32%	0%
	over 60 years	17%	44%	39%	0%

SLEEPING PROBLEMS
Course of complaint frequency and severity in different patient groups

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.7.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the field of sleep complaints.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **8% of** all respondents. For **26%, the** frequency of complaints was reduced by one level, for **28% by** two levels, for **28% by** three levels and for **9%** by four levels. Thus, 9% of all level 5 patients are free of complaints (no/no significant complaints).

SLEEPING PROBLEMS
Treatment success as a function of complaint frequency and severity
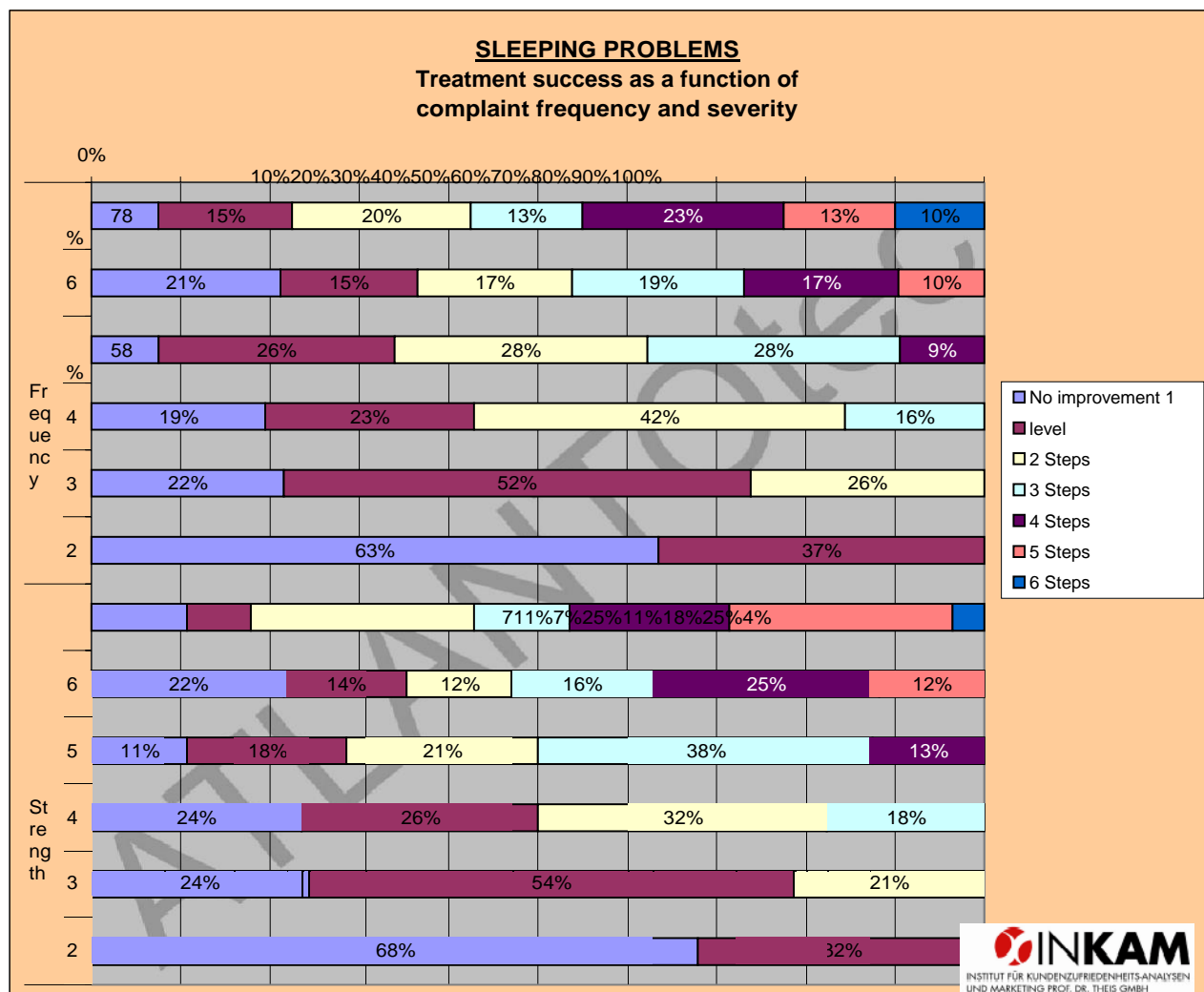
5.7.4 Average frequency of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of *sleep complaints* has changed on average for all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.
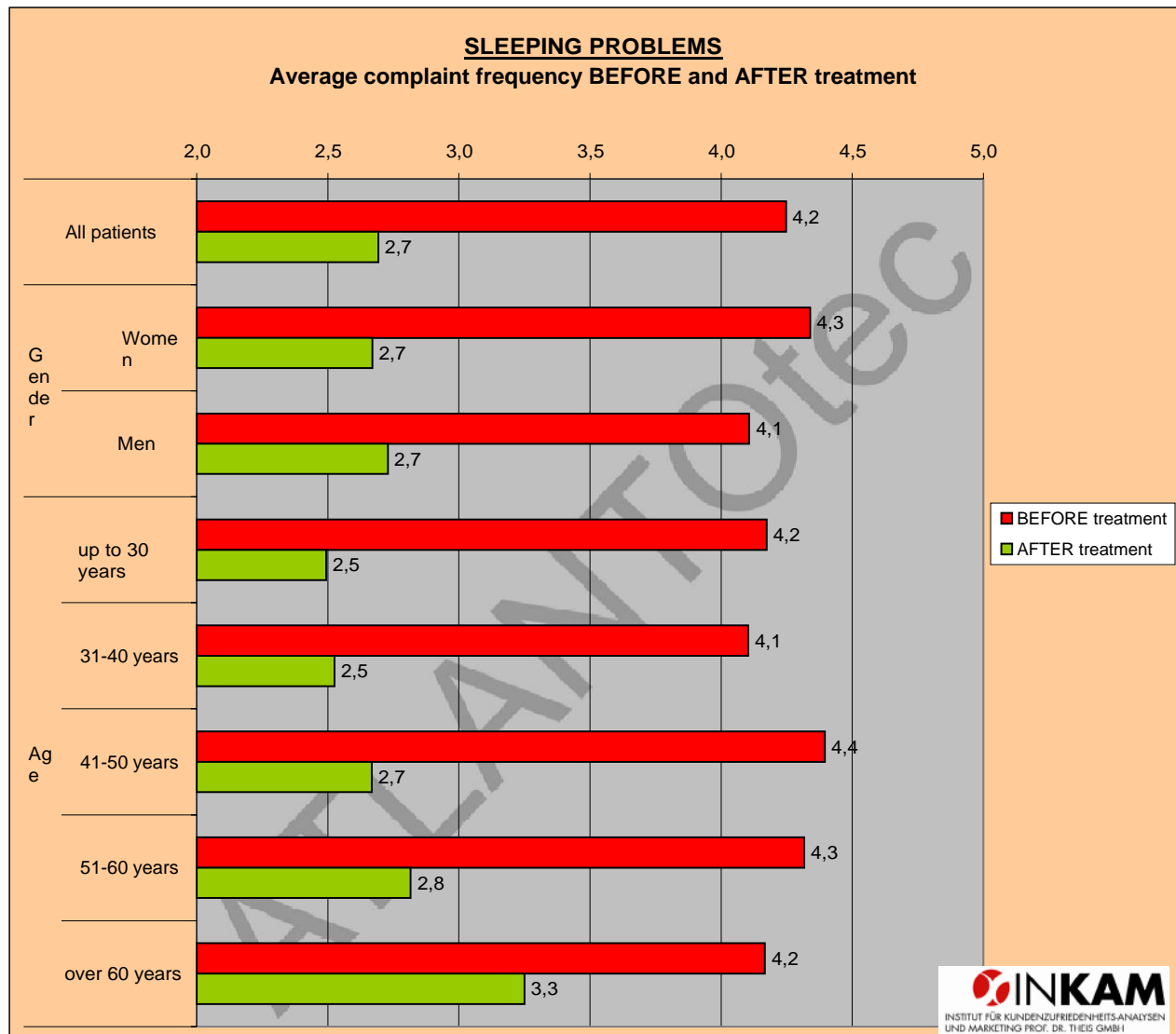
5.7.5 Average complaint severity BEFORE and AFTER the treatment

The following graph shows - differentiated according to the various patient groups - how the severity of *sleep complaints* changed on average across all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

SLEEPING PROBLEMS
Average severity of complaints BEFORE and AFTER treatment

Patient group	BEFORE treatment	AFTER treatment
All patients	4,0	2,6
Gender – Women	4,1	2,6
Gender – Men	4,0	2,6
Age – up to 30 years	4,0	2,4
Age – 31-40 years	3,9	2,5
Age – 41-50 years	4,3	2,6
Age – 51-60 years	4,1	2,6
Age – over 60 years	4,0	2,8
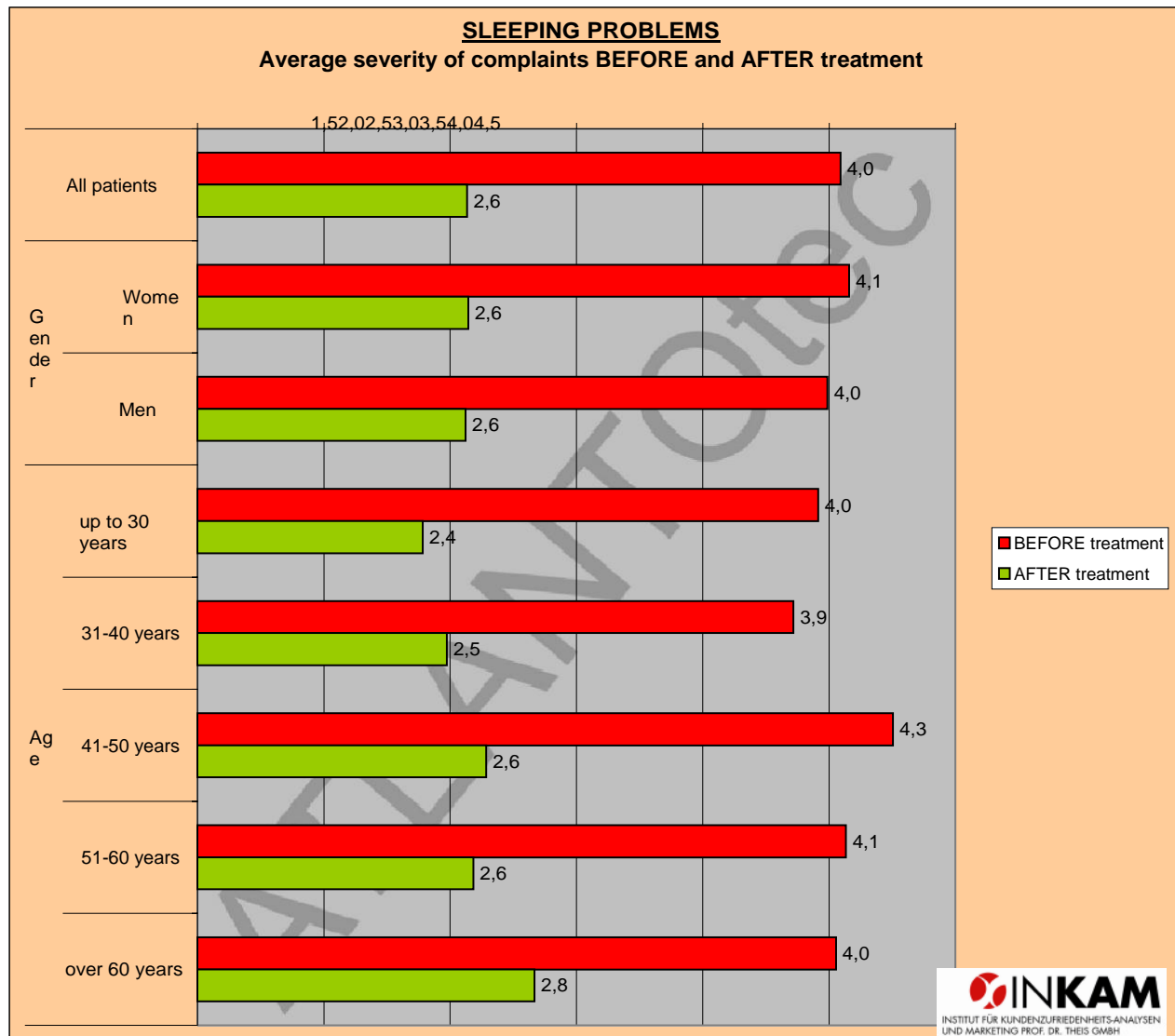
5.8 Gastrointestinal complaints

5.8.1 Complaint status at the beginning of the treatment

The following graph shows the proportion of patients - differentiated according to the various patient groups - who suffered from gastrointestinal complaints before treatment.
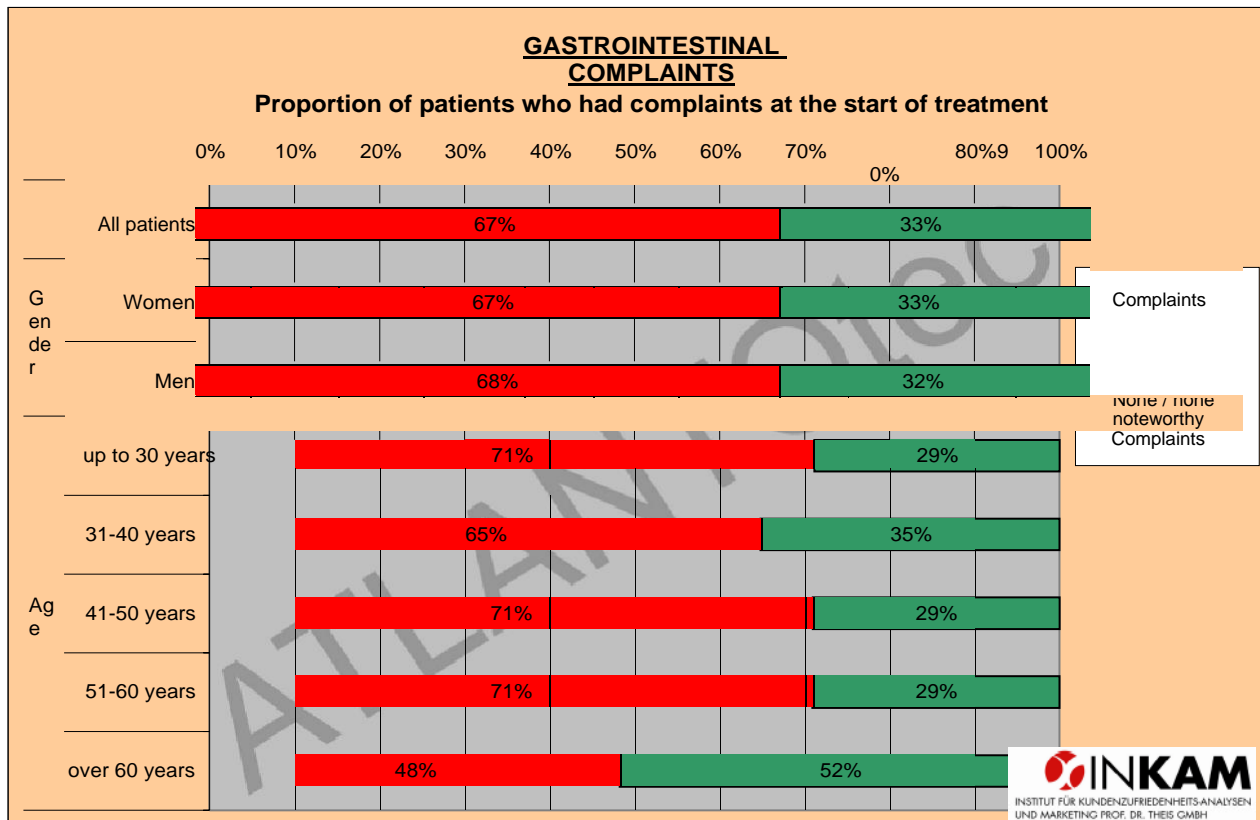
5.8.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of <u>severity and frequency in</u> those patients who complained of gastrointestinal complaints at the beginning (scale levels 2-7 for frequency and/or severity) and underwent *AT-LANTOtec*® treatment.

GASTROINTESTINAL COMPLAINTS
Course of complaint frequency and severity in
different patient groups

		Complaint-free	Improvement	No change	Deterioration
Frequency	All patients	20%	48%	28%	3%
	Women	21%	49%	26%	3%
	Men	20%	46%	31%	3%
	up to 30 years	24%	50%	26%	0%
	31-40 years	29%	46%	23%	3%
	41-50 years	17%	51%	27%	6%
	51-60 year		46%	37%	4%
	over 60 years	21%	45%	31%	
Strength	All patients	20%	41%	34%	4%
	Women	21%	42%	33%	4%
	Men	20%	40%	36%	
	up to 30 years	24%	41%	35%	
	31-40 years	29%	43%	26%	3%
	41-50 years	17%	46%	32%	6%
	51-60 years	14%	41%	39%	5%
	over 60 years	21%	28%	45%	%

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.8.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.
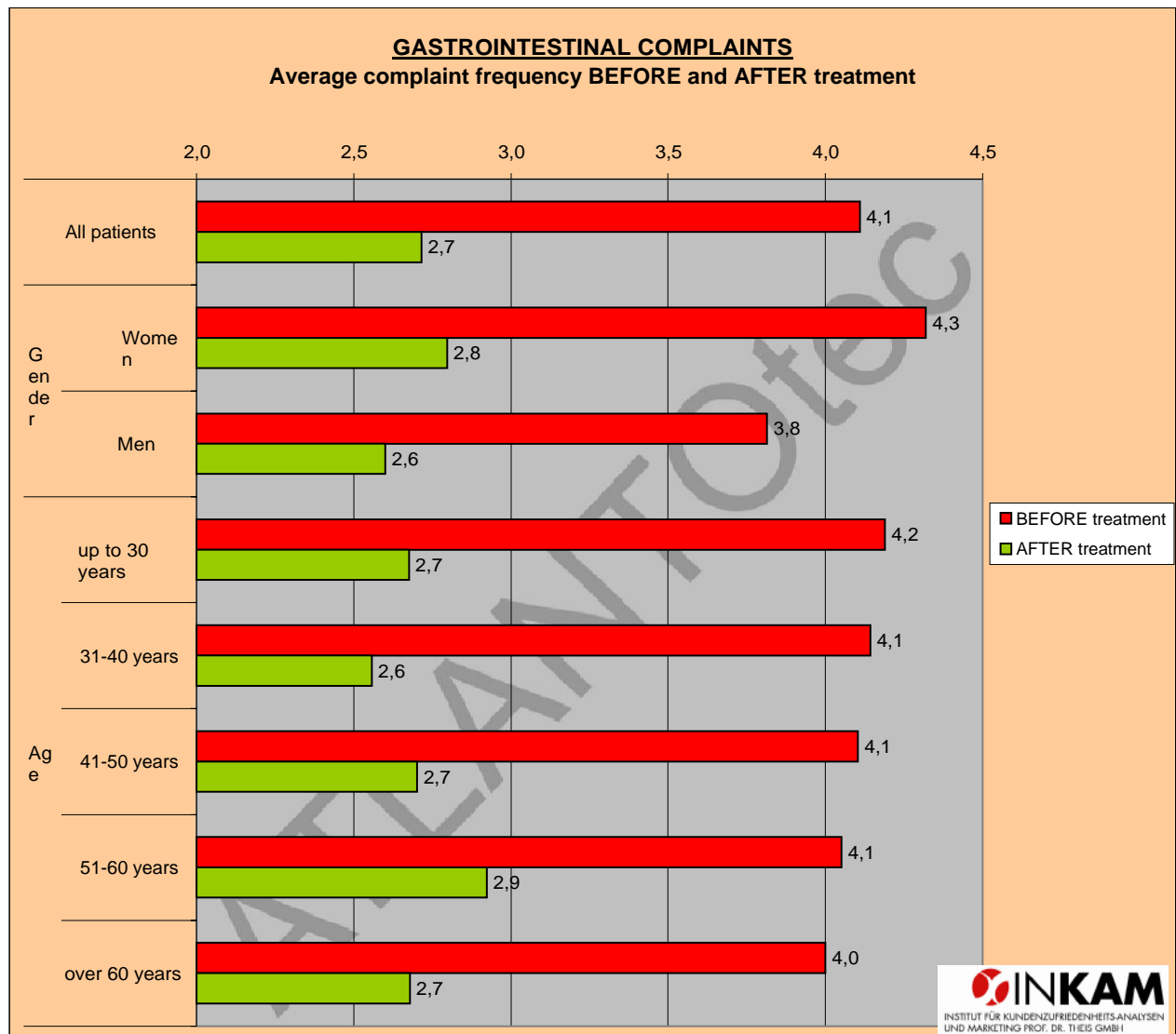
The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the field of gastrointestinal complaints.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **15% of** all respondents. In **10%, the** frequency of complaints was reduced by one level, in **38% by** two levels, in **16%** by three levels and in **21% by** four levels. Thus, 21% of all level 5 patients are free of complaints (no/no significant complaints).

GASTROINTESTINAL COMPLAINTS
Treatment success as a function of
complaint frequency and severity
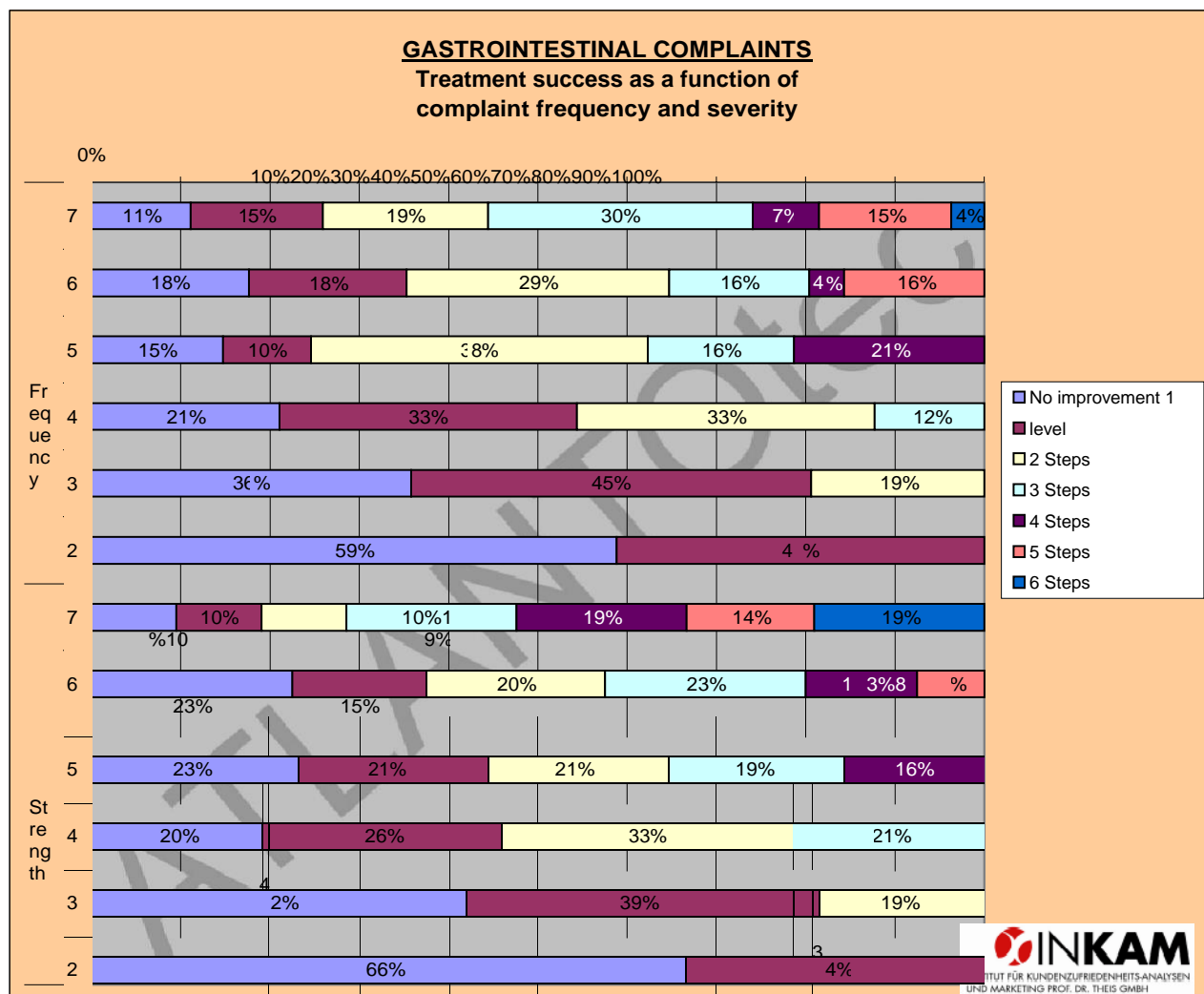
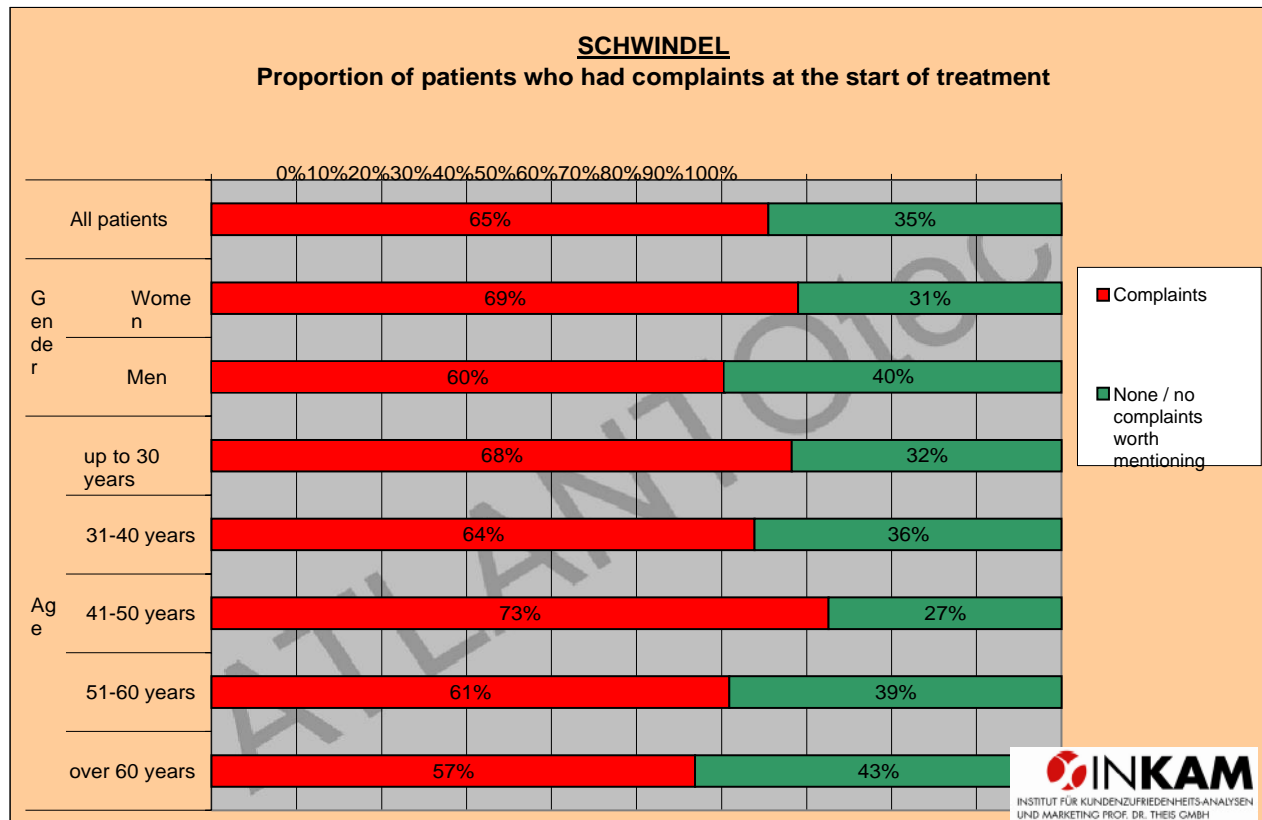## 5.8.4 Average frequency of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of gastrointestinal complaints changed on average across all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.
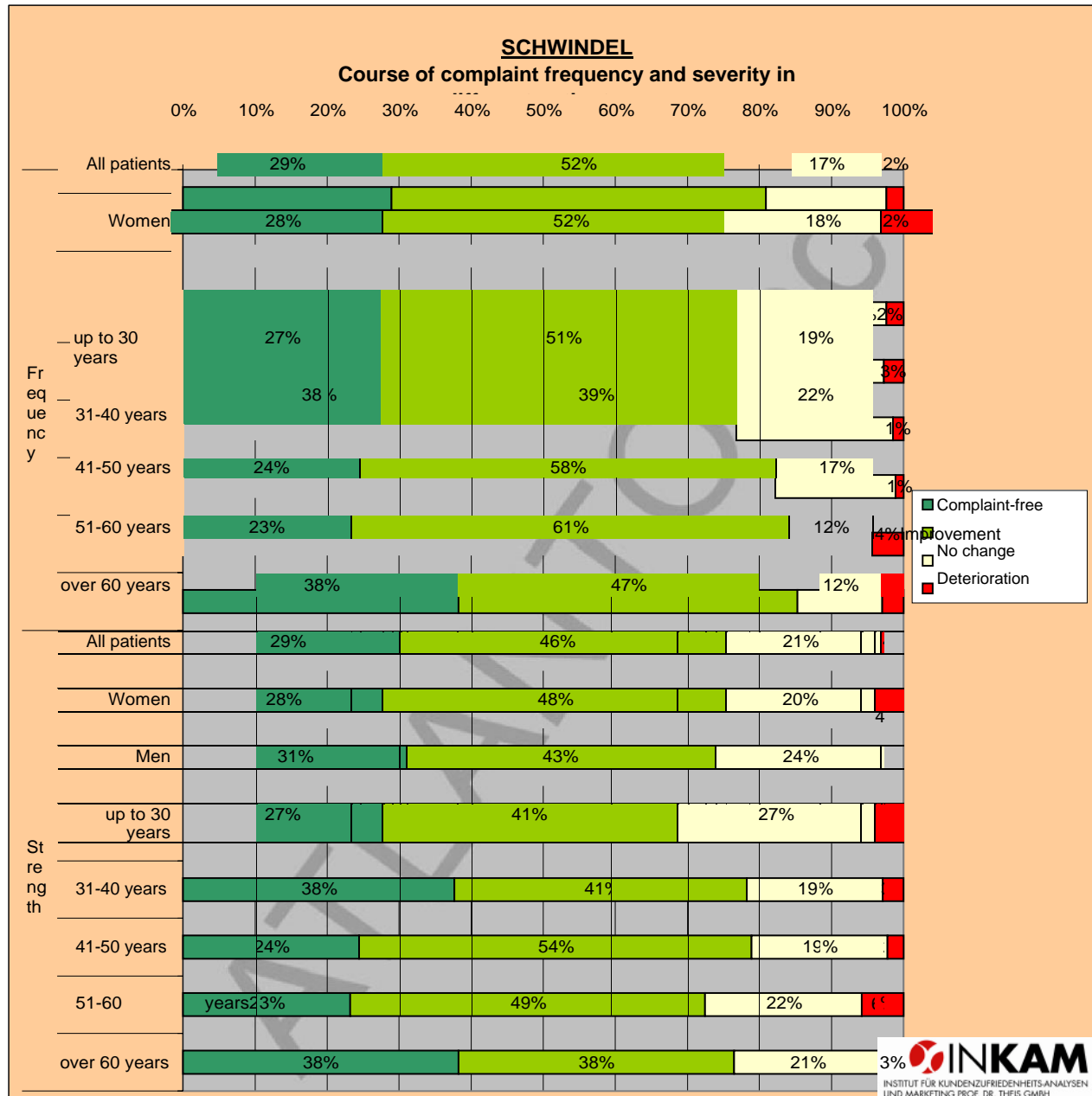

GASTROINTESTINAL COMPLAINTS
Average complaint frequency BEFORE and AFTER treatment

Patient group		BEFORE treatment	AFTER treatment
All patients		4,1	2,7
Gender	Women	4,3	2,8
	Men	3,8	2,6
Age	up to 30 years	4,2	2,7
	31-40 years	4,1	2,6
	41-50 years	4,1	2,7
	51-60 years	4,1	2,9
	over 60 years	4,0	2,7

5.8.5 Average complaint severity BEFORE and AFTER the treatment

The following graph shows - differentiated according to the various patient groups - how the severity of *gastrointestinal complaints* changed on average across all patients (with complaints before treatment) as a result of the *ATLANTOtec*® treatment.

GASTROINTESTINAL COMPLAINTS
Average severity of complaints BEFORE and AFTER treatment

Group	BEFORE treatment	AFTER treatment
All patients	3,9	2,6
Women	4,1	2,8
Men	3,6	2,5
up to 30 years	3,9	2,5
31-40 years	3,9	2,4
41-50 years	4,1	2,7
51-60 years	3,9	2,9
over 60 years	3,8	2,9
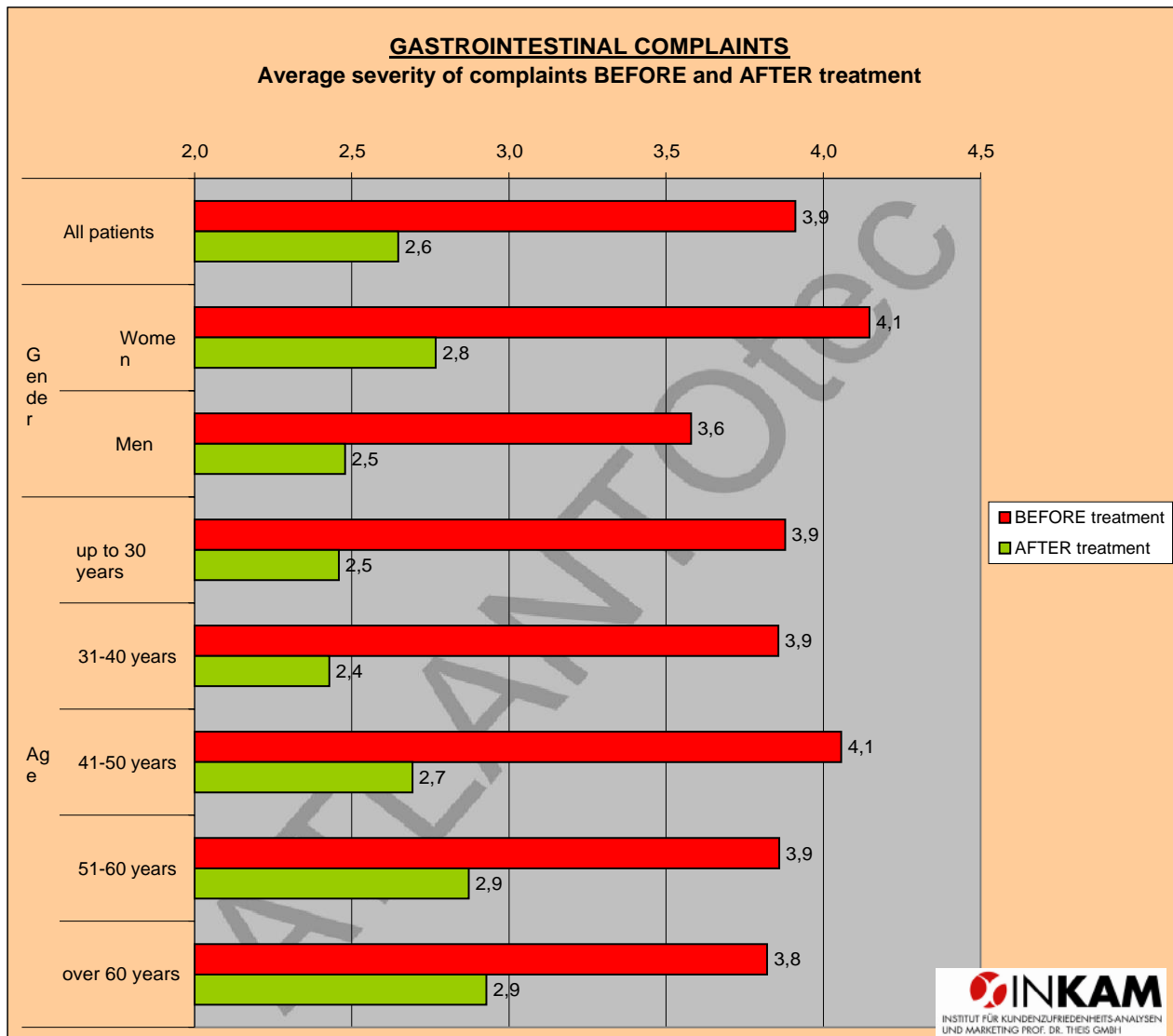
5.9 Dizziness

5.9.1 Complaint status at the beginning of the treatment

The following graph shows what proportion of patients - differentiated according to the various patient groups - suffered from dizziness before treatment.

SCHWINDEL
Proportion of patients who had complaints at the start of treatment

Group		Complaints	None / no complaints worth mentioning
All patients		65%	35%
Gender	Women	69%	31%
	Men	60%	40%
Age	up to 30 years	68%	32%
	31-40 years	64%	36%
	41-50 years	73%	27%
	51-60 years	61%	39%
	over 60 years	57%	43%

5.9.2 Effects of treatment on frequency and severity of complaints

The following figure shows the progression of symptoms in terms of severity and frequency for those patients who complained of dizziness at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the *ATLANTOtec®* treatment.

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.9.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec®* treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of dizziness.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **11% of** all respondents. For **13%, the** frequency of complaints was reduced by one level, for **25% by** two levels, for **36%** by three levels and for **16% by** four levels. Consequently, 16% of all level 5 patients are free of complaints (no/no significant complaints).
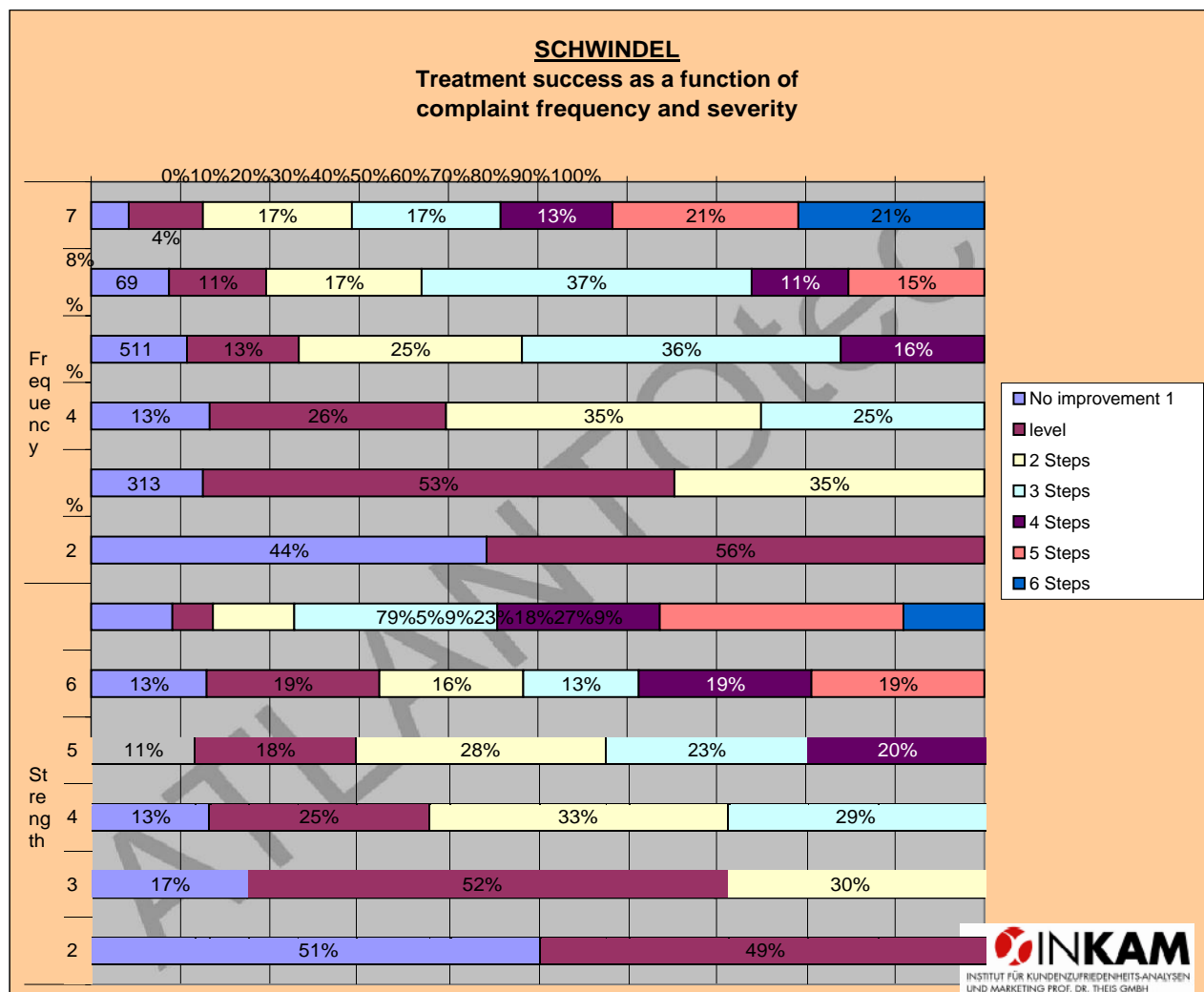
5.9.4 Average frequency of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of complaints of **dizziness** has changed on average over all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.
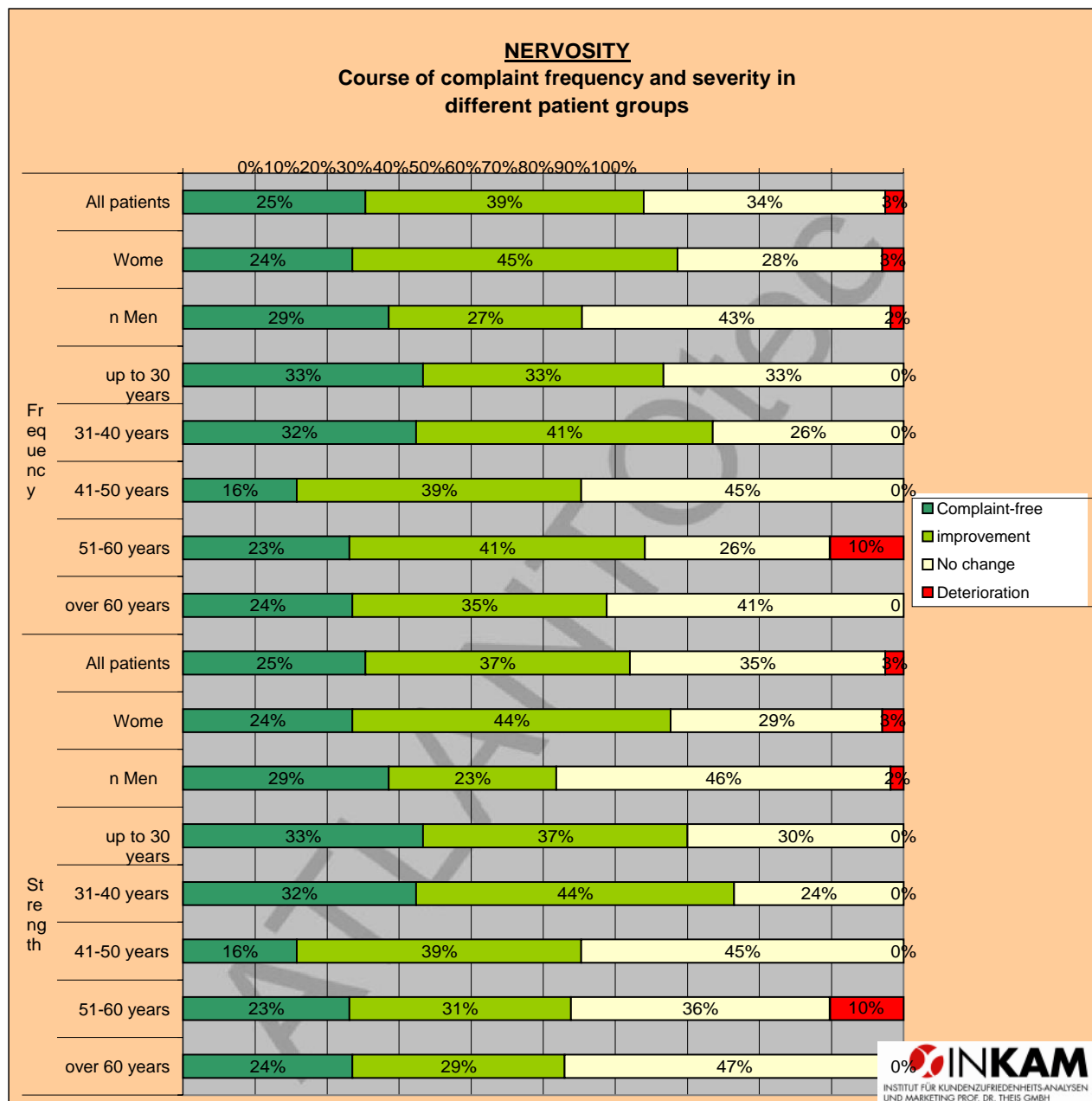

SCHWINDEL
Average complaint frequency BEFORE and AFTER treatment

Group	BEFORE treatment	AFTER treatment
All patients	4,1	2,3
Gender — Women	4,2	2,3
Gender — Men	3,9	2,3
Age — up to 30 years	3,9	2,2
Age — 31-40 years	3,9	2,1
Age — 41-50 years	4,3	2,4
Age — 51-60 years	4,1	2,5
Age — over 60 years	3,9	2,2
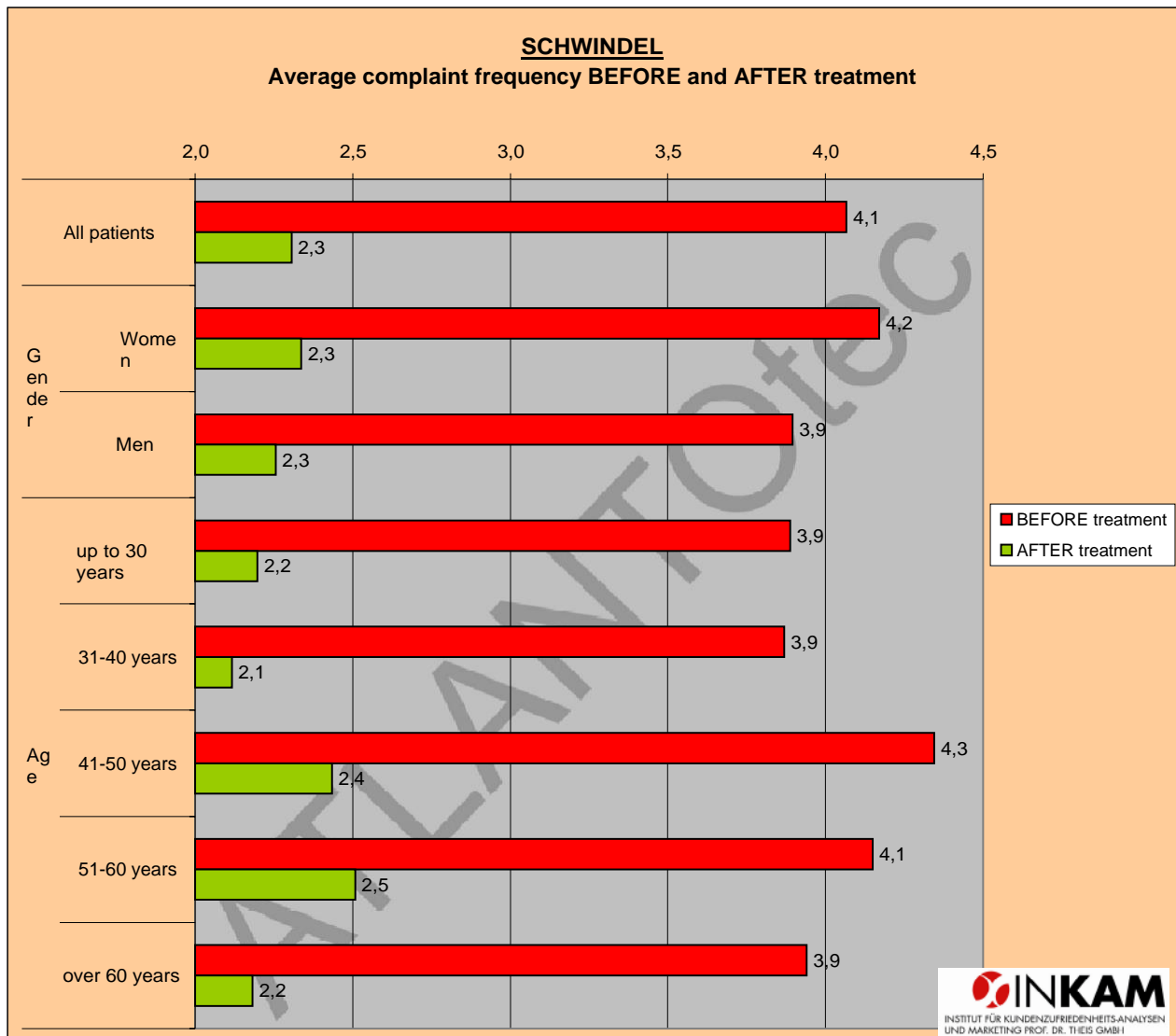
5.9.5 Average complaint severity BEFORE and AFTER the treatment

The following graph shows - differentiated according to the various patient groups - how the severity of *dizziness complaints* changed on average across all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

SCHWINDEL
Average severity of complaints BEFORE and AFTER treatment

Patient group	BEFORE treatment	AFTER treatment
All patients	3,9	2,3
Gender — Women	4,0	2,4
Gender — Men	3,8	2,3
Age — up to 30 years	3,7	2,2
Age — 31-40 years	3,8	2,3
Age — 41-50 years	4,2	2,5
Age — 51-60 years	3,8	2,4
Age — over 60 years	3,7	2,2
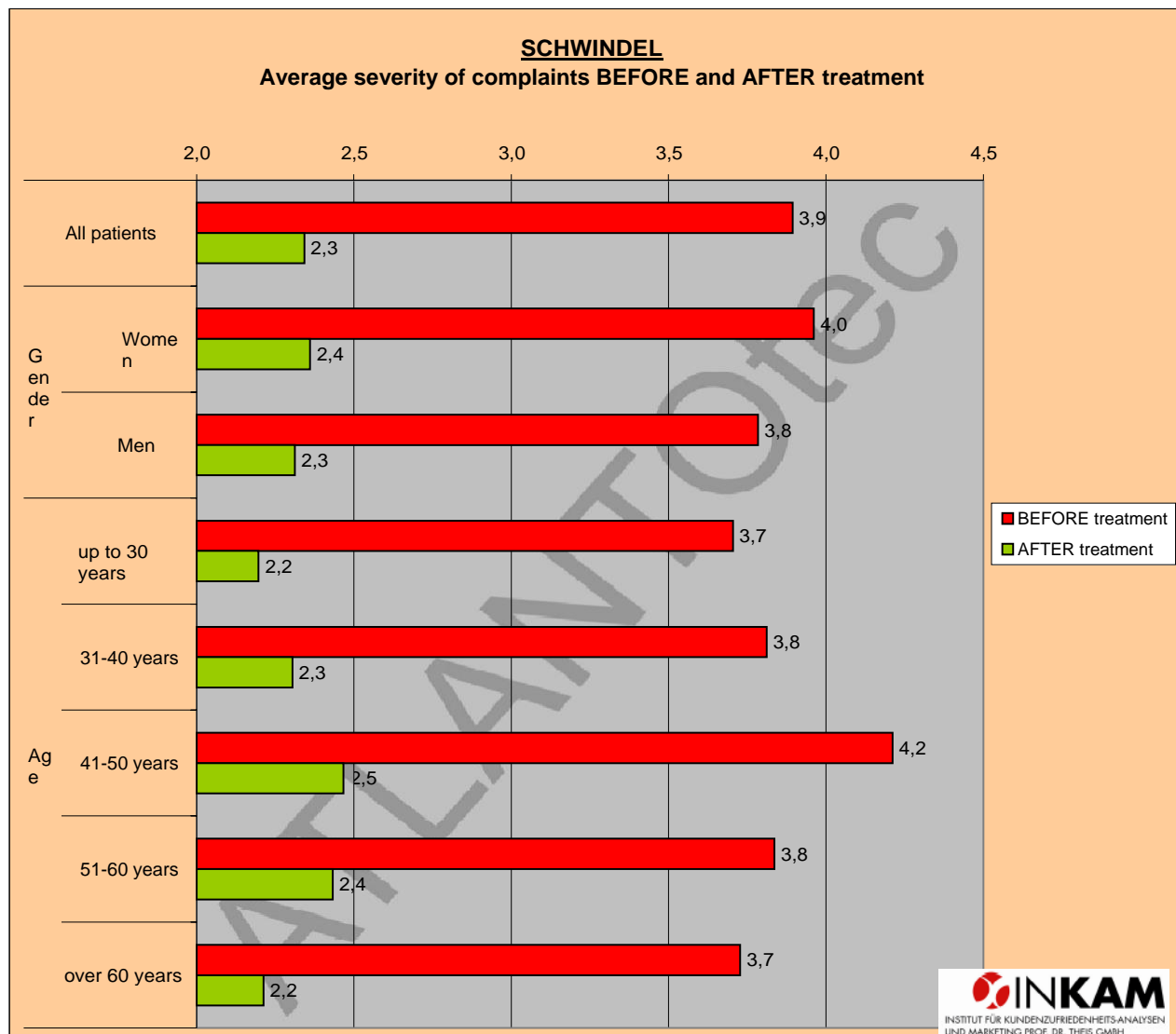
5.10 Nervousness

5.10.1 Complaint status at the beginning of the treatment
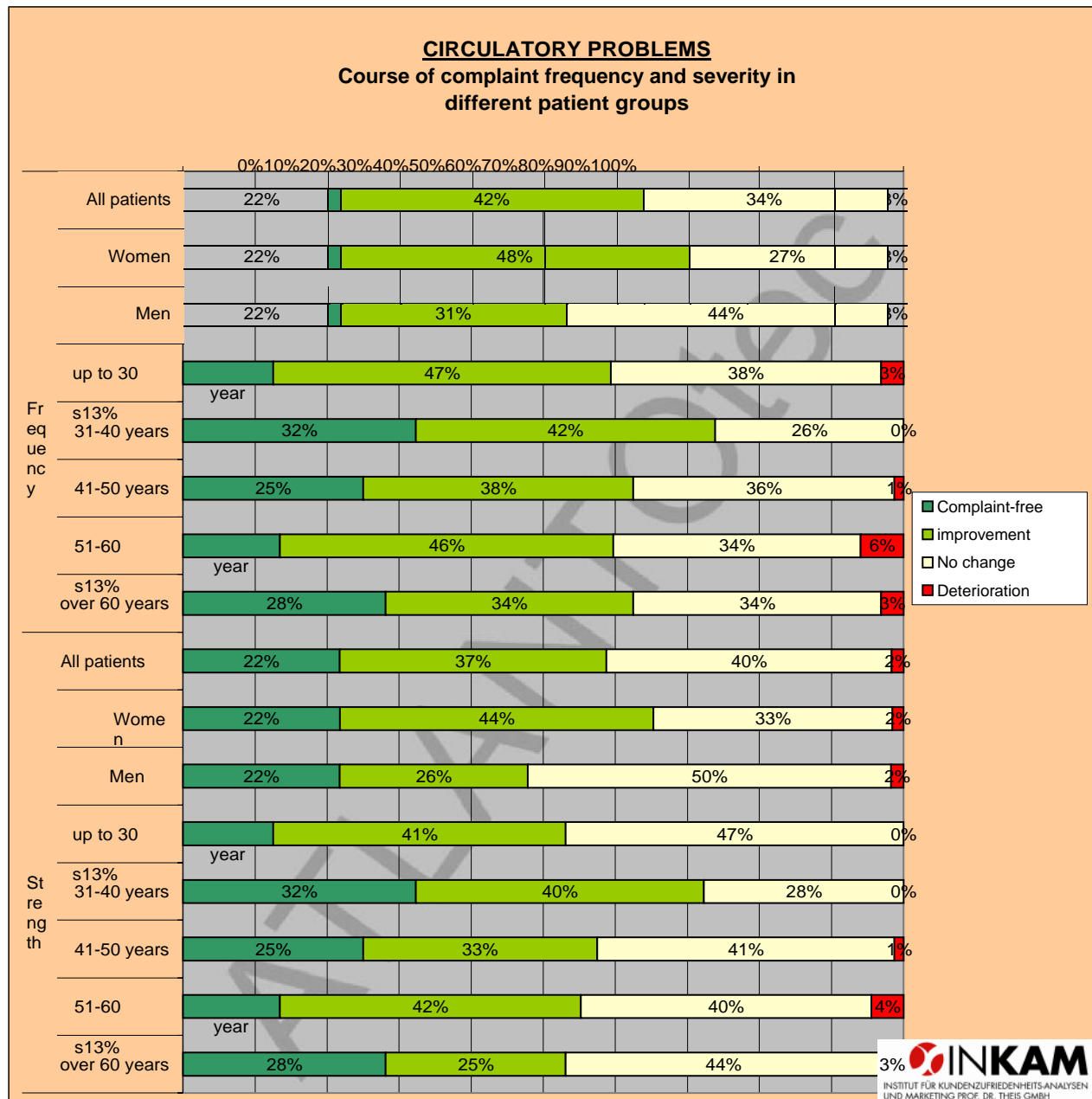
The following chart shows the proportion of patients - differentiated according to the various patient groups - who suffered from nervousness before treatment.
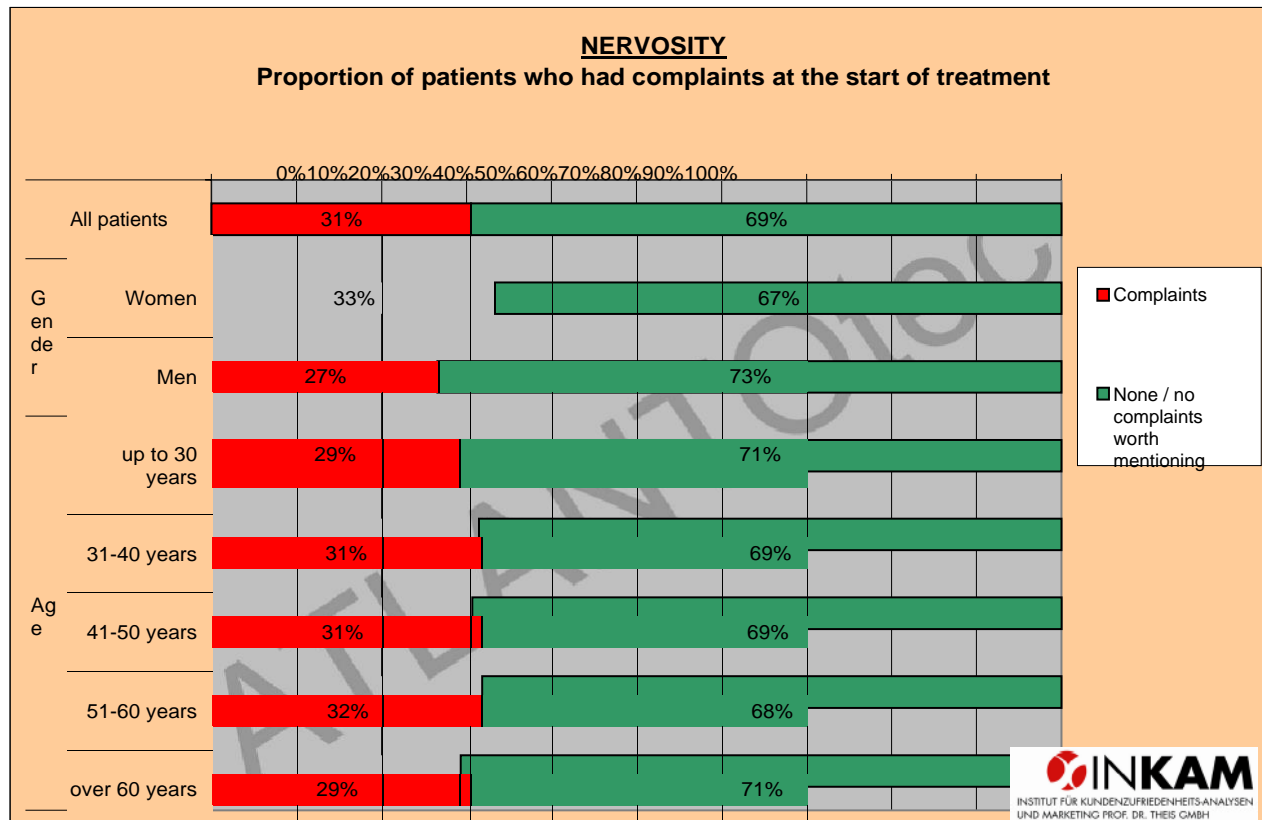
5.10.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of severity and frequency for those patients who complained of nervousness at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the ATLANTOtec® treatment.

NERVOSITY
Course of complaint frequency and severity in different patient groups

		Complaint-free	improvement	No change	Deterioration
Frequency	All patients	25%	39%	34%	3%
	Women	24%	45%	28%	3%
	n Men	29%	27%	43%	2%
	up to 30 years	33%	33%	33%	0%
	31-40 years	32%	41%	26%	0%
	41-50 years	16%	39%	45%	0%
	51-60 years	23%	41%	26%	10%
	over 60 years	24%	35%	41%	0
Strength	All patients	25%	37%	35%	3%
	Women	24%	44%	29%	3%
	n Men	29%	23%	46%	2%
	up to 30 years	33%	37%	30%	0%
	31-40 years	32%	44%	24%	0%
	41-50 years	16%	39%	45%	0%
	51-60 years	23%	31%	36%	10%
	over 60 years	24%	29%	47%	0%

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* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).
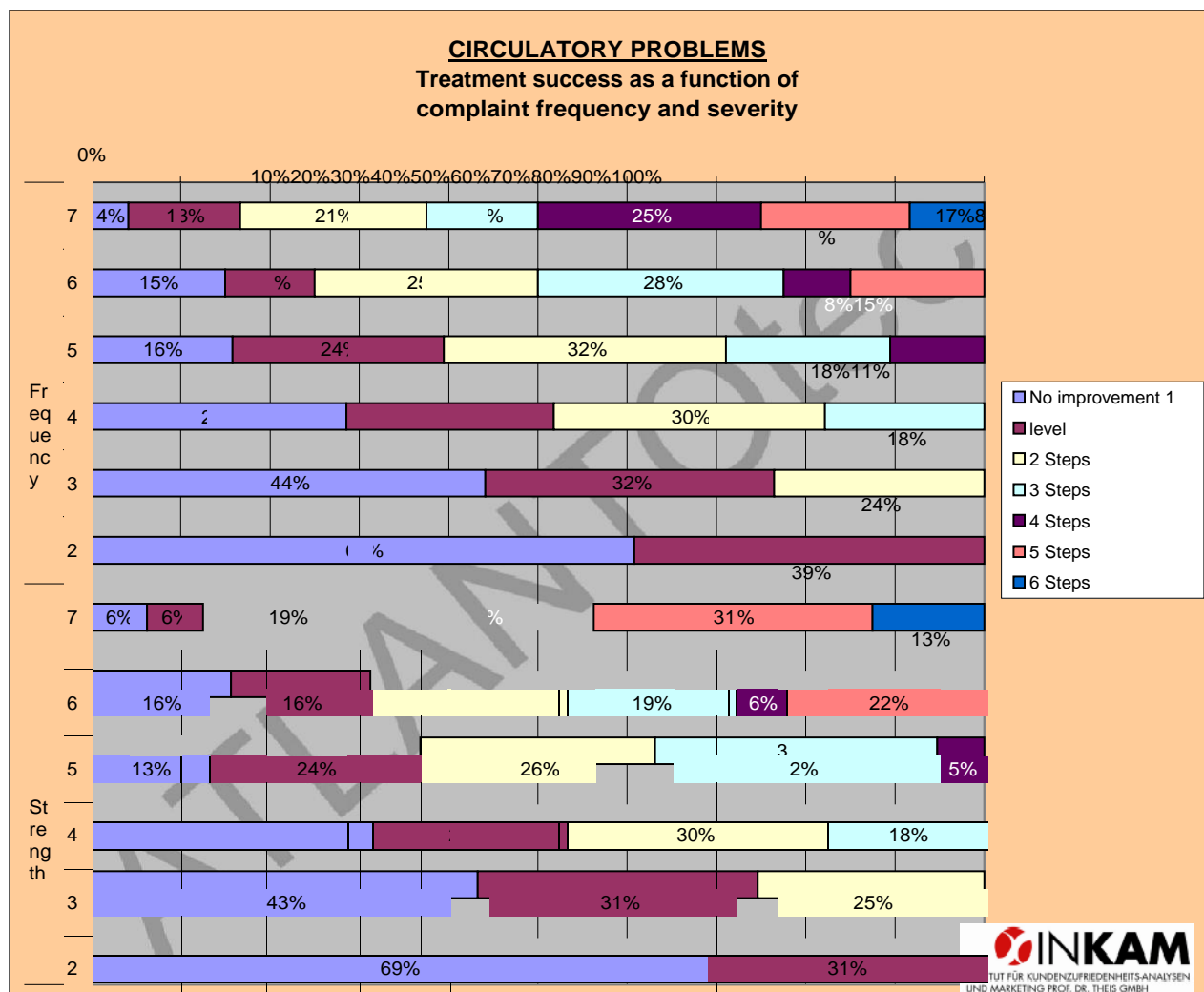
5.10.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of nervousness.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **10% of** all respondents. For **10%, the** frequency of complaints was reduced by one level, for **40% by** two levels, for **40% by** three levels and for **0% by** four levels. Consequently, 0% of all level 5 patients are free of complaints (no/no significant complaints).
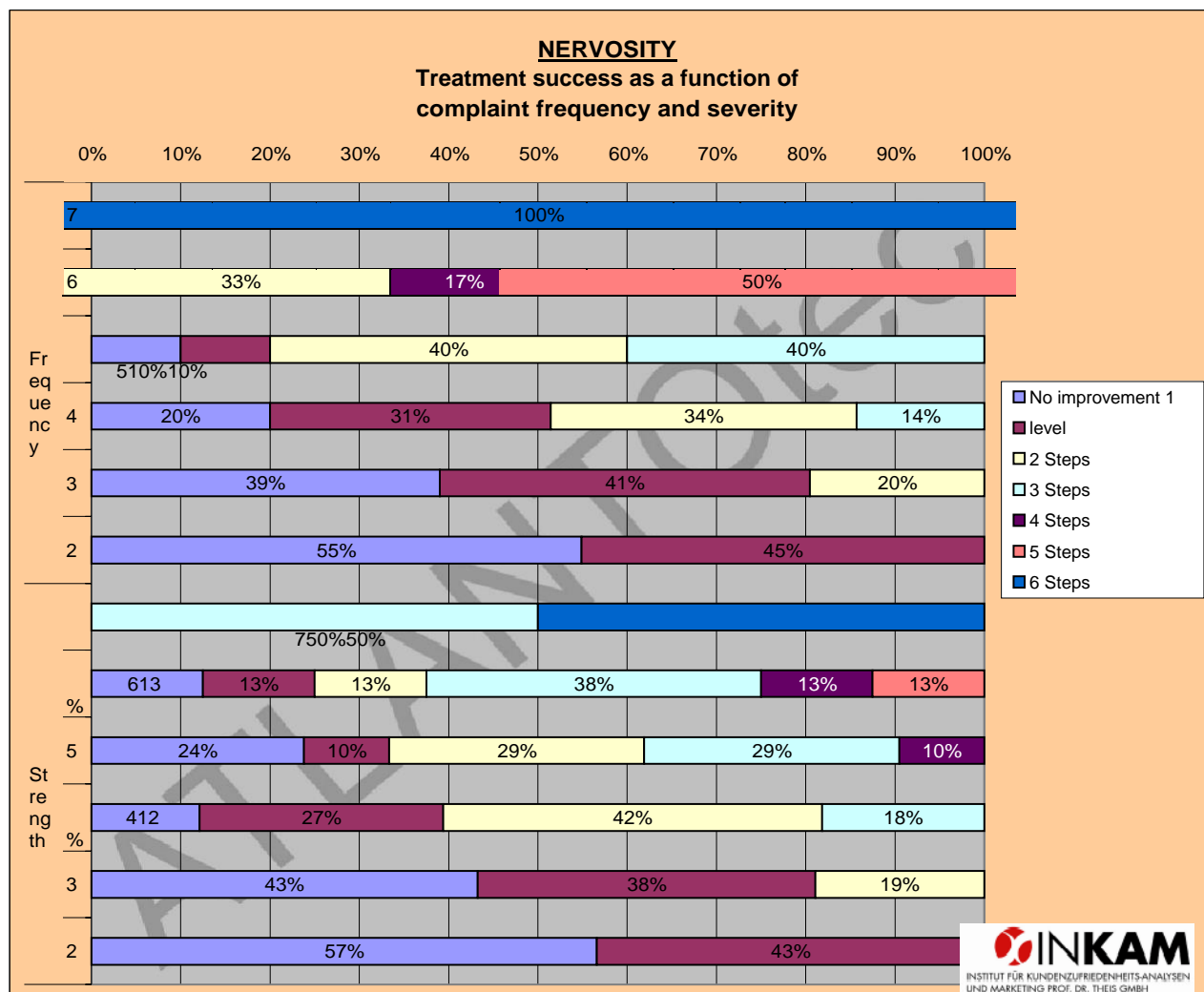
5.10.4 Average complaint frequency BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of complaints of *nervousness* has changed on average over all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

NERVOSITY
Average complaint frequency BEFORE and AFTER treatment

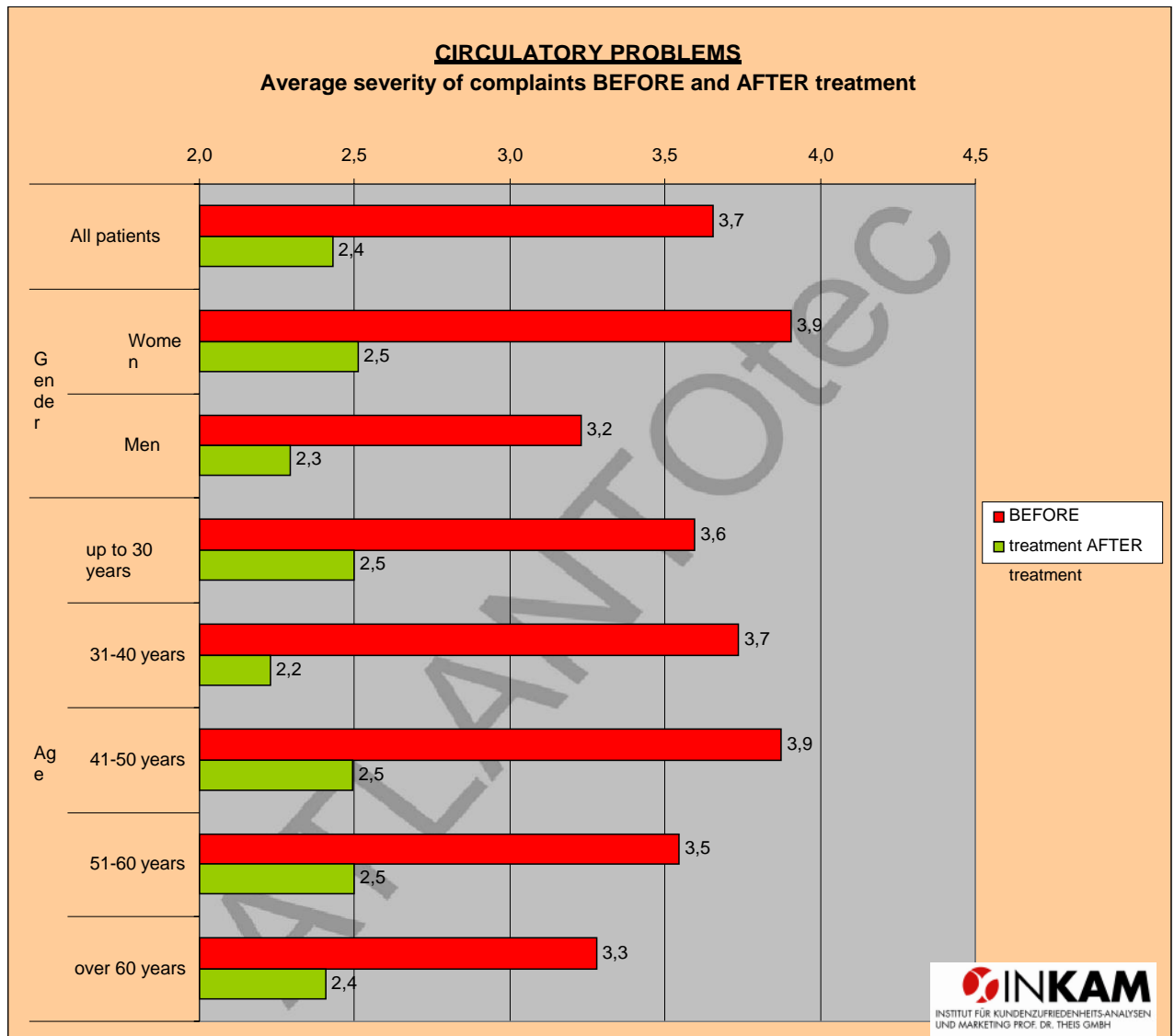| Group		BEFORE treatment	AFTER treatment
All patients		3,3	2,1
Gender	Women	3,5	2,2
	Men	3,0	2,1
Age	up to 30 years	3,3	2,2
	31-40 years	3,6	2,1
	41-50 years	3,3	2,3
	51-60 years	3,2	2,0
	over 60 years	3,1	2,2
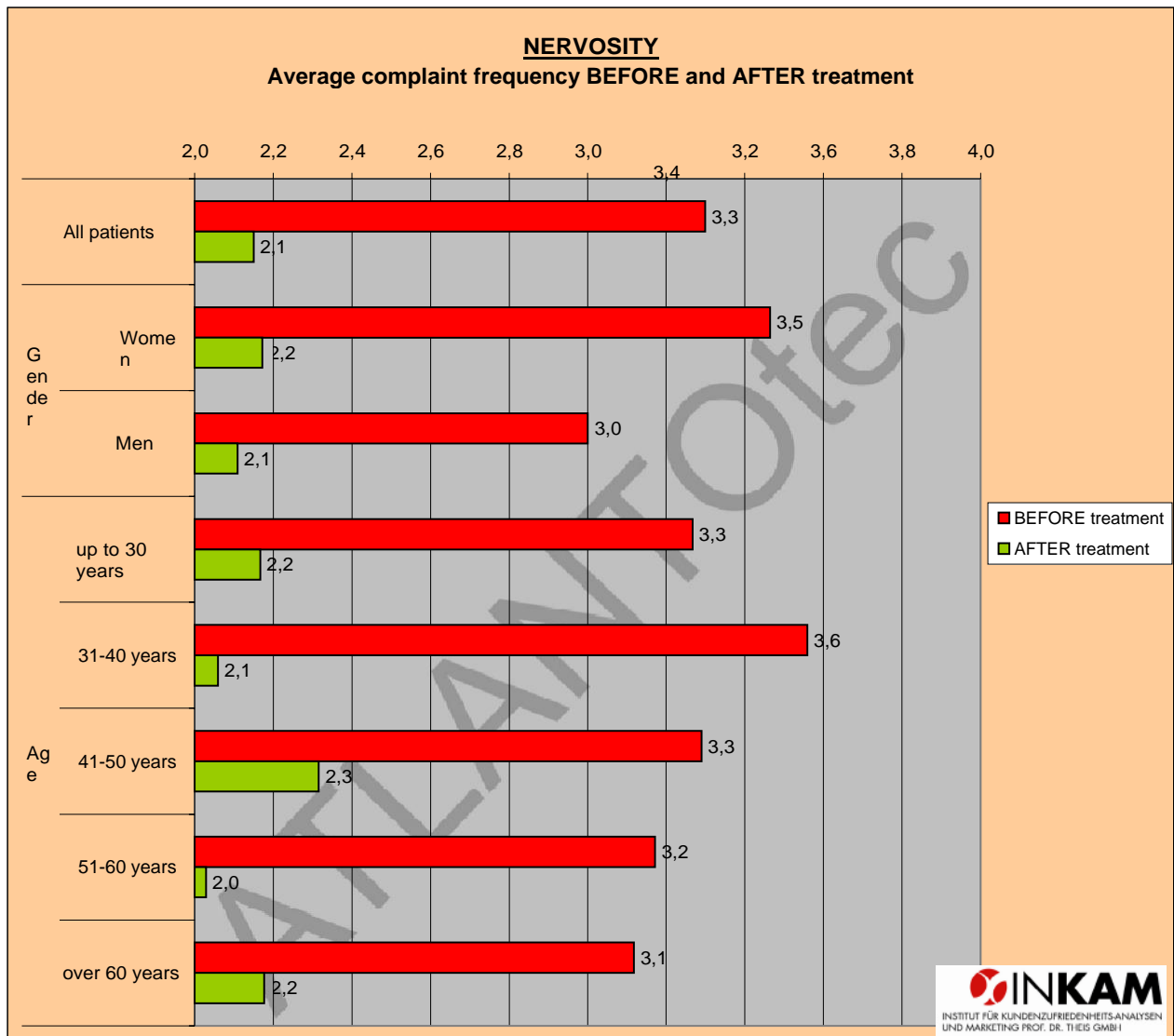
5.10.5 Average severity of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the severity of _**nervousness**_ complaints changed on average across all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

NERVOSITY
**Average severity of complaints BEFORE and AFTER treatment**

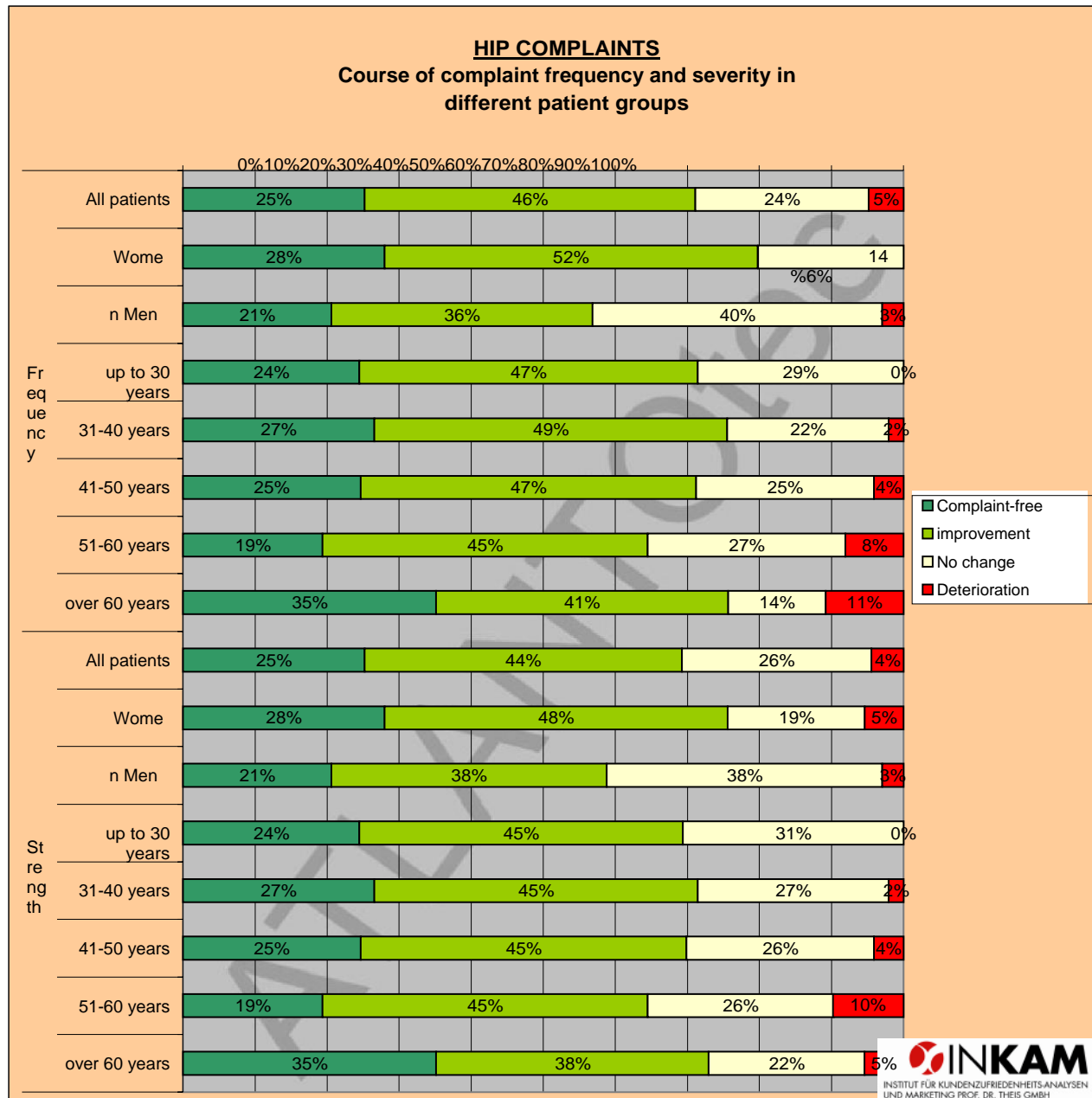| Patient group	BEFORE treatment	AFTER treatment
All patients	3,4	2,2
Gender – Women	3,5	2,2
Gender – Men	3,0	2,2
Age – up to 30 years	3,5	2,2
Age – 31-40 years	3,7	2,2
Age – 41-50 years	3,4	2,5
Age – 51-60 years	3,0	2,0
Age – over 60 years	2,9	2,0
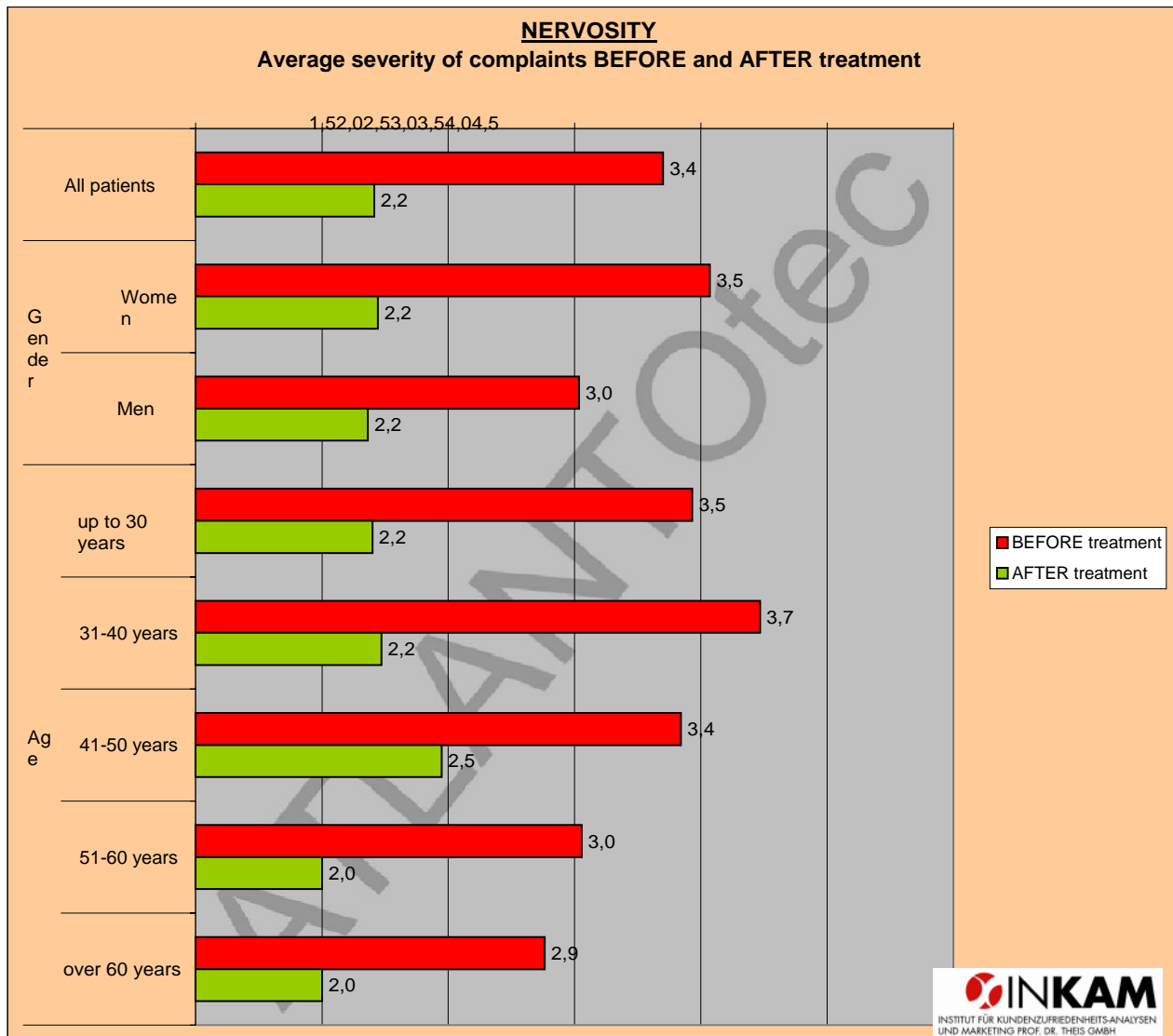
5.11 Circulatory problems

5.11.1 Complaint status at the beginning of the treatment

The following graph shows the proportion of patients - differentiated according to the various patient groups - who suffered from circulatory problems before treatment.
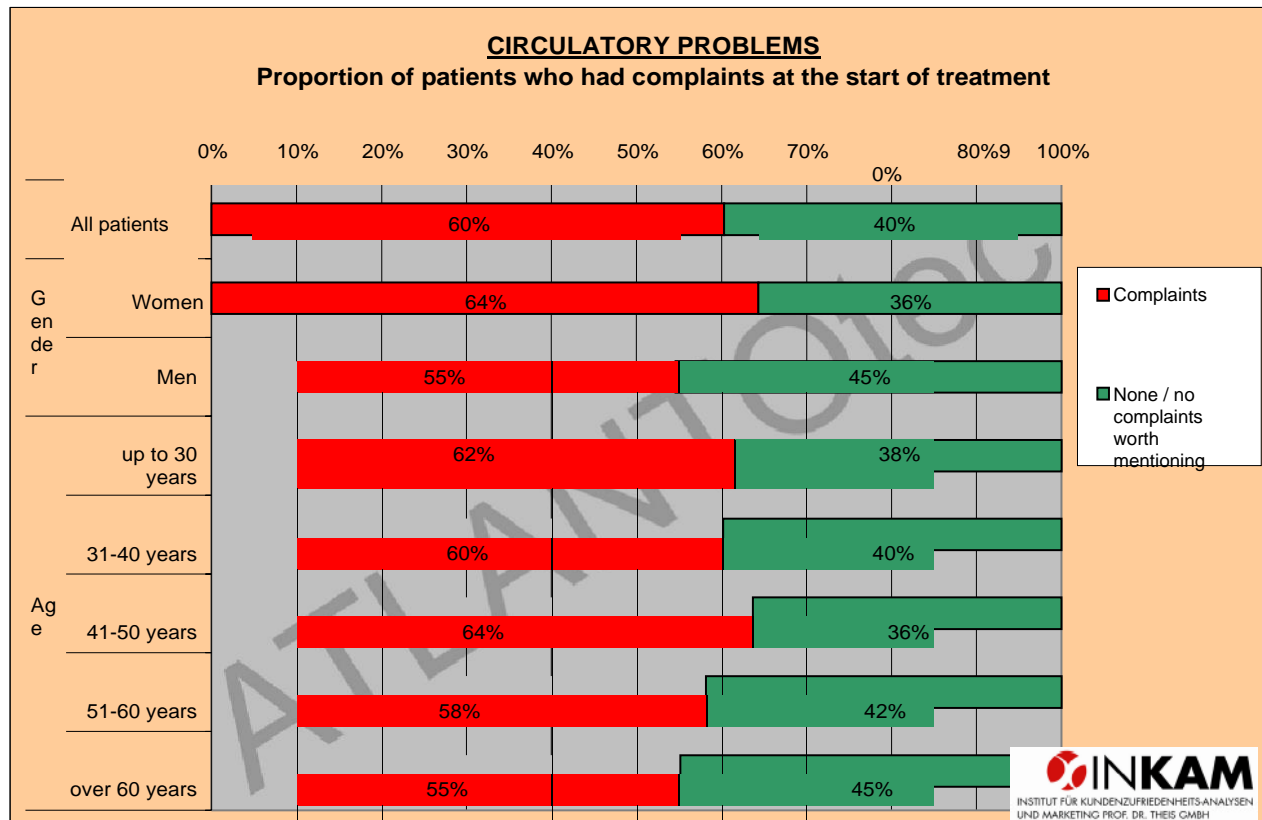
5.11.2 Effects of treatment on frequency and severity of symptoms

The following figure shows the course of the complaints in terms of severity and frequency in those patients who complained of circulatory complaints at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the ATLANTO- tec® treatment.

CIRCULATORY PROBLEMS
Course of complaint frequency and severity in different patient groups

|	Complaint-free	improvement	No change	Deterioration
Frequency				
All patients	22%	42%	34%	3%
Women	22%	48%	27%	3%
Men	22%	31%	44%	3%
up to 30 year s13%	47%	38%	3%	
31-40 years	32%	42%	26%	0%
41-50 years	25%	38%	36%	1%
51-60 year s13%	46%	34%	6%	
over 60 years	28%	34%	34%	3%
Strength				
All patients	22%	37%	40%	2%
Women	22%	44%	33%	2%
Men	22%	26%	50%	2%
up to 30 year s13%	41%	47%	0%	
31-40 years	32%	40%	28%	0%
41-50 years	25%	33%	41%	1%
51-60 year s13%	42%	40%	4%	
over 60 years	28%	25%	44%	3%

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.11.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of circulatory complaints.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **16% of** all respondents. For **24%, the** frequency of complaints was reduced by one level, for **32% by** two levels, for **18%** by three levels and for **11% by** four levels. Consequently, 11% of all level 5 patients are free of complaints (no/no significant complaints).
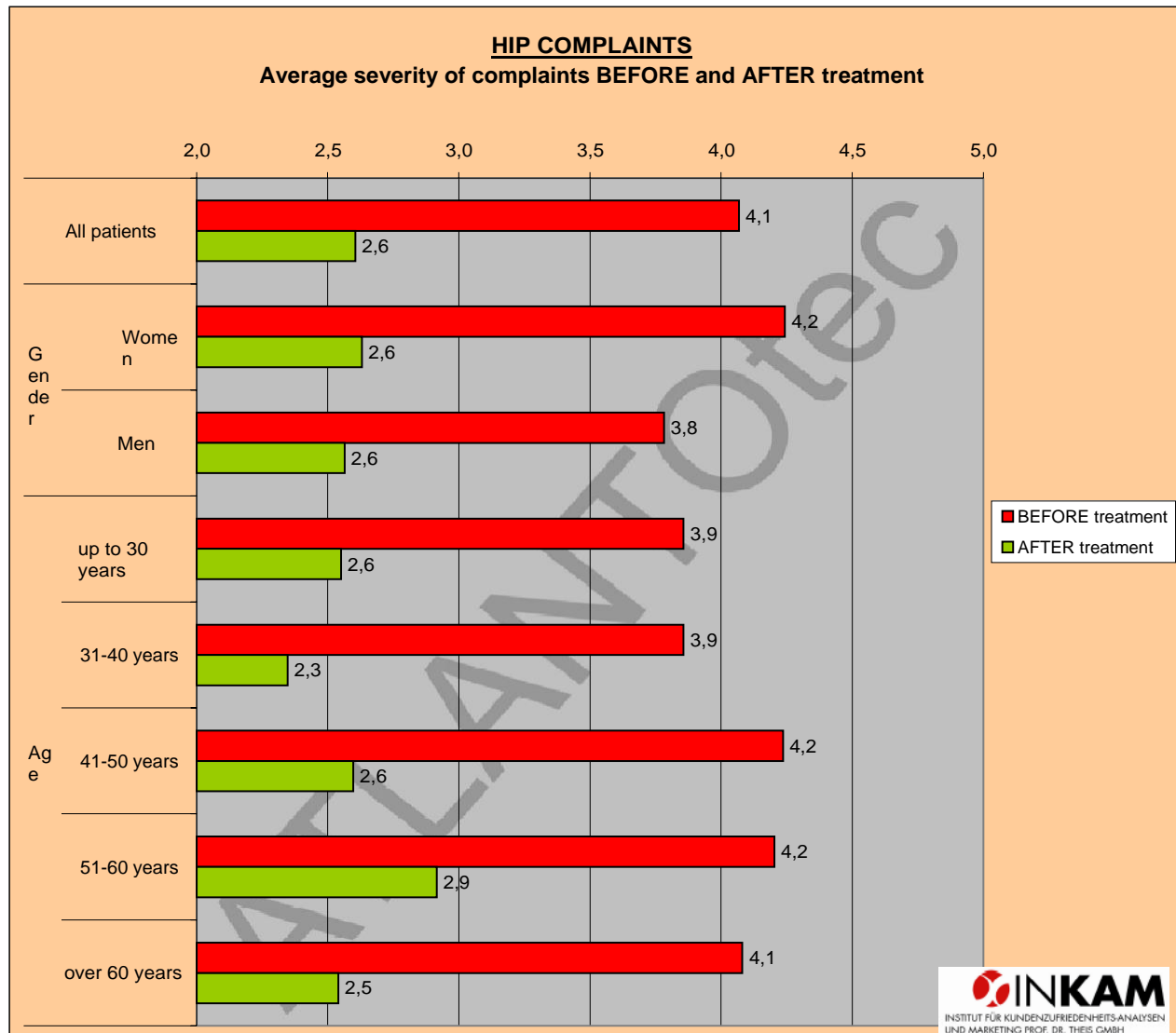
5.11.4 Average complaint frequency BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of complaints *of circulatory problems* has changed on average over all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

CIRCULATORY PROBLEMS
Average complaint frequency BEFORE and AFTER treatment

Patient group	BEFORE treatment	AFTER treatment
All patients	3,9	2,7
Gender – Women	4,2	2,7
Gender – Men	3,4	2,6
Age – up to 30 years	3,9	3,2
Age – 31-40 years	4,0	2,4
Age – 41-50 years	4,0	2,5
Age – 51-60 years	3,8	2,7
Age – over 60 years	3,9	2,6

5.11.5 Average severity of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the severity of complaints *of circulatory problems* has changed on average over all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.
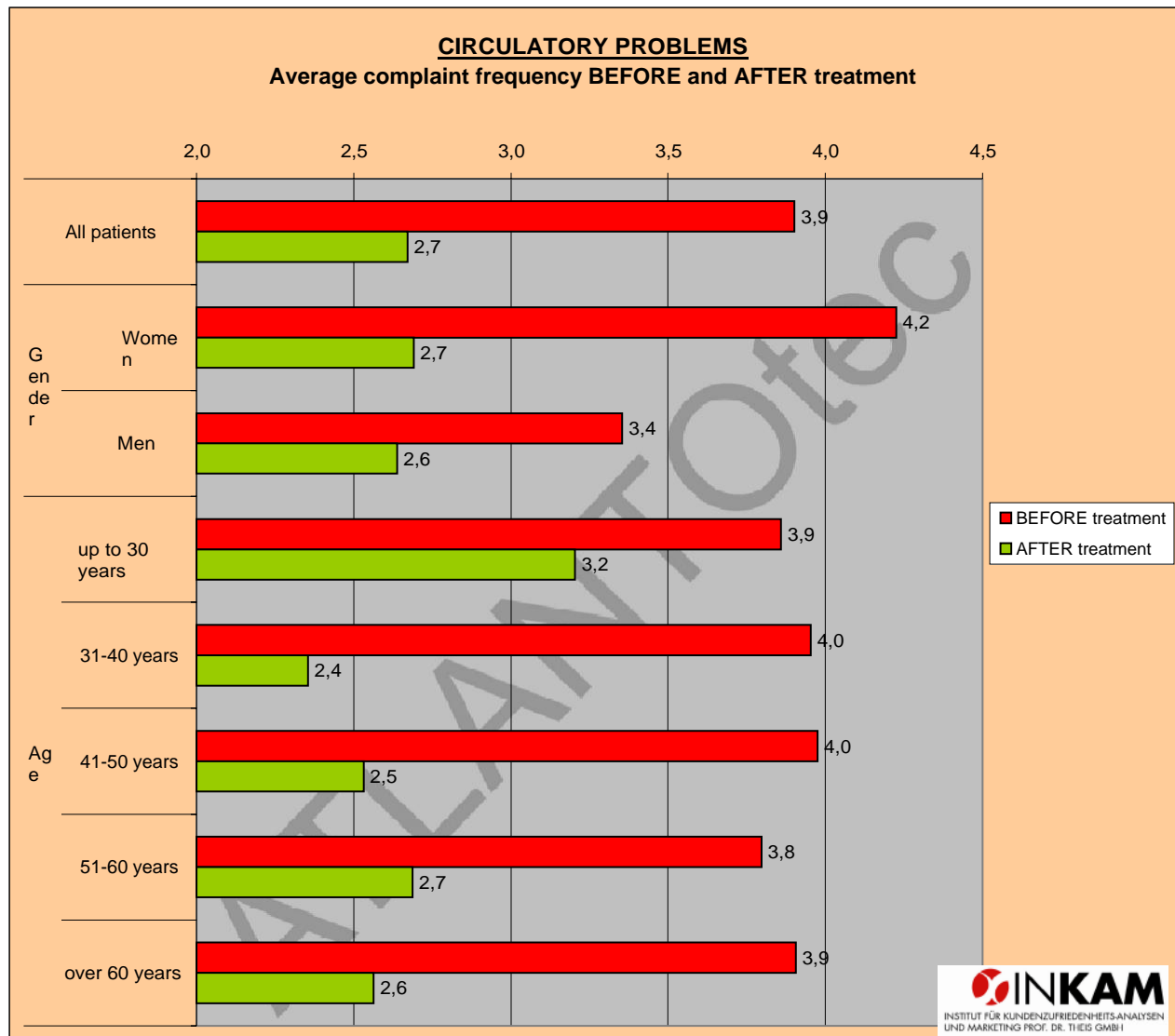
CIRCULATORY PROBLEMS
Average severity of complaints BEFORE and AFTER treatment

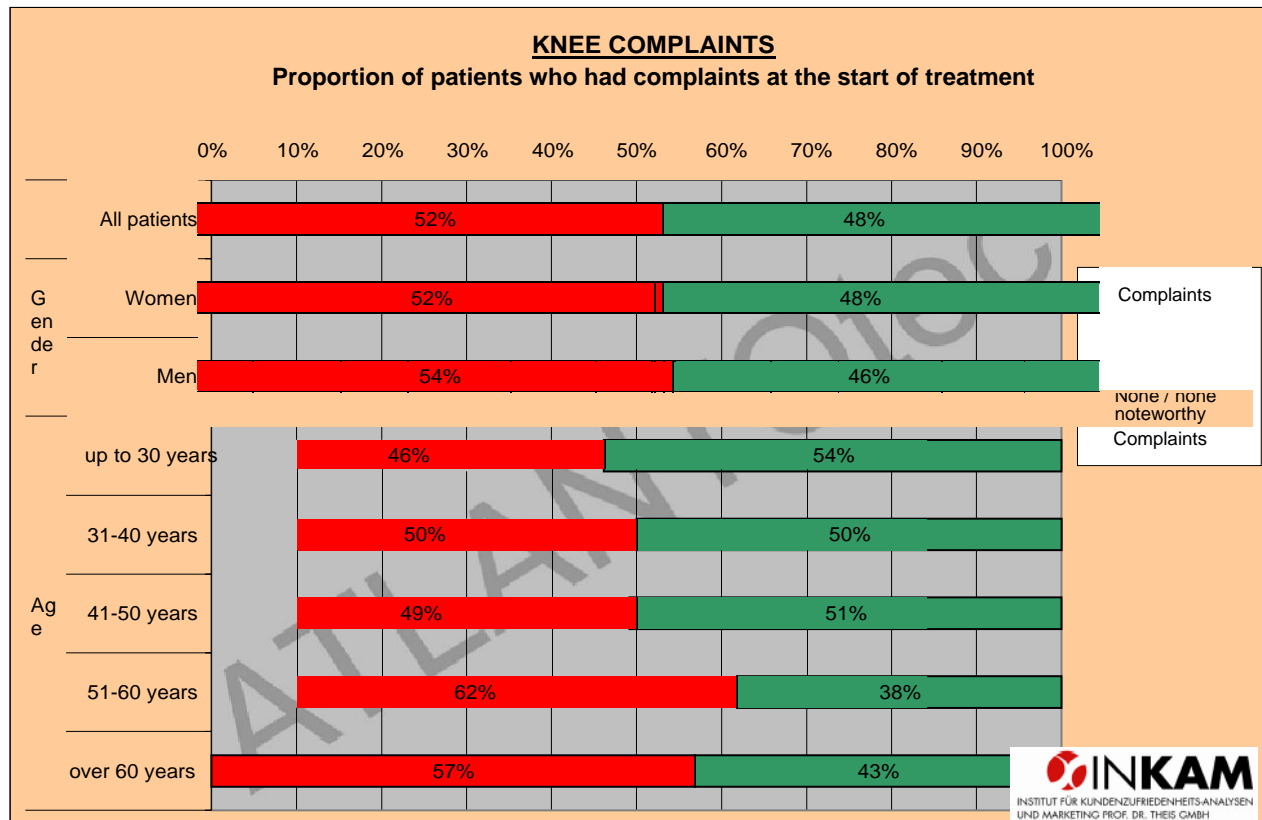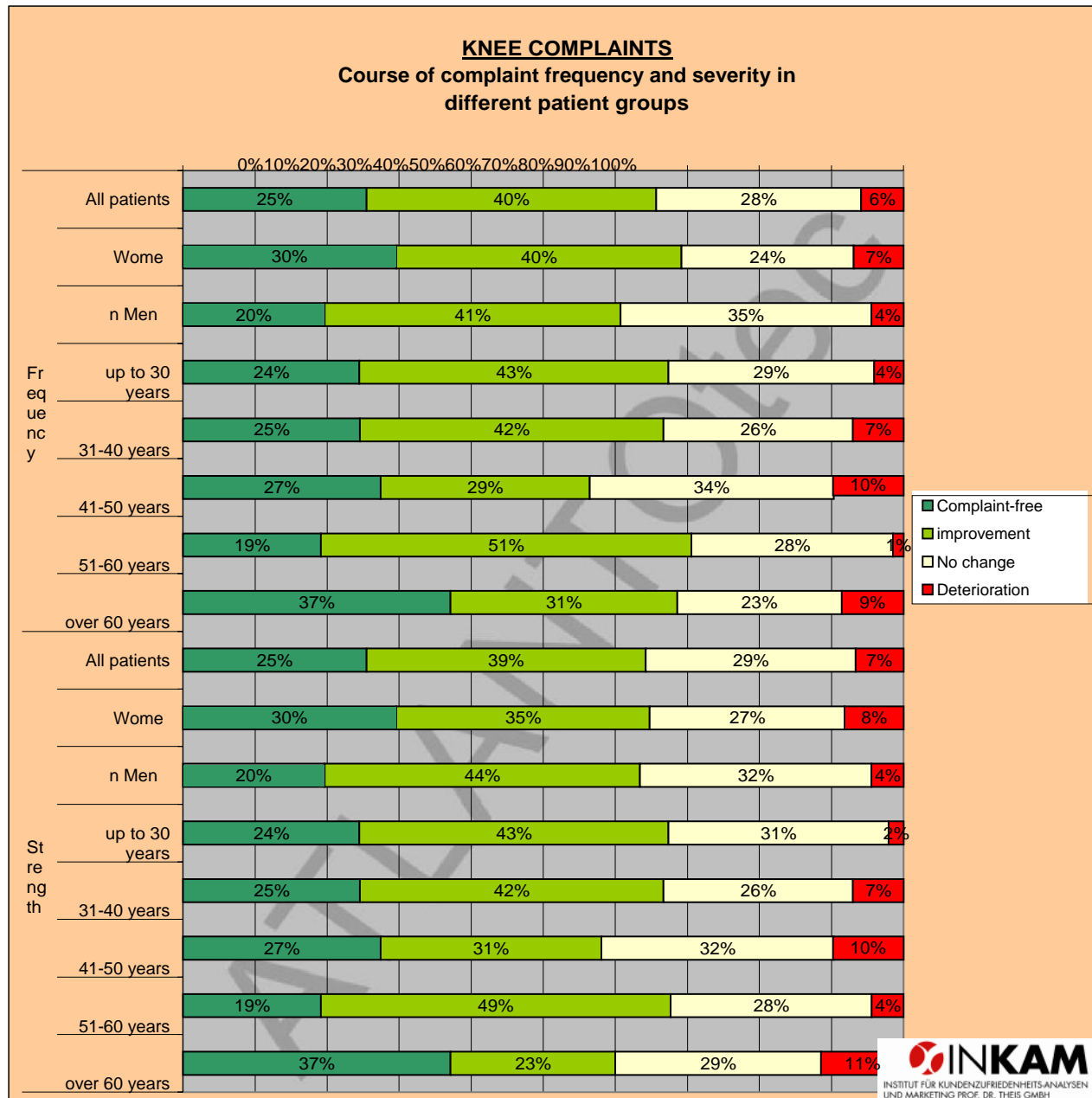| Group		BEFORE	treatment AFTER treatment
	All patients	3,7	2,4
Gender	Women	3,9	2,5
	Men	3,2	2,3
Age	up to 30 years	3,6	2,5
	31-40 years	3,7	2,2
	41-50 years	3,9	2,5
	51-60 years	3,5	2,5
	over 60 years	3,3	2,4

5.12 Hip complaints

5.12.1 Complaint status at the beginning of the treatment

The following graph shows what proportion of patients - differentiated according to the various patient groups - suffered from hip complaints before treatment.
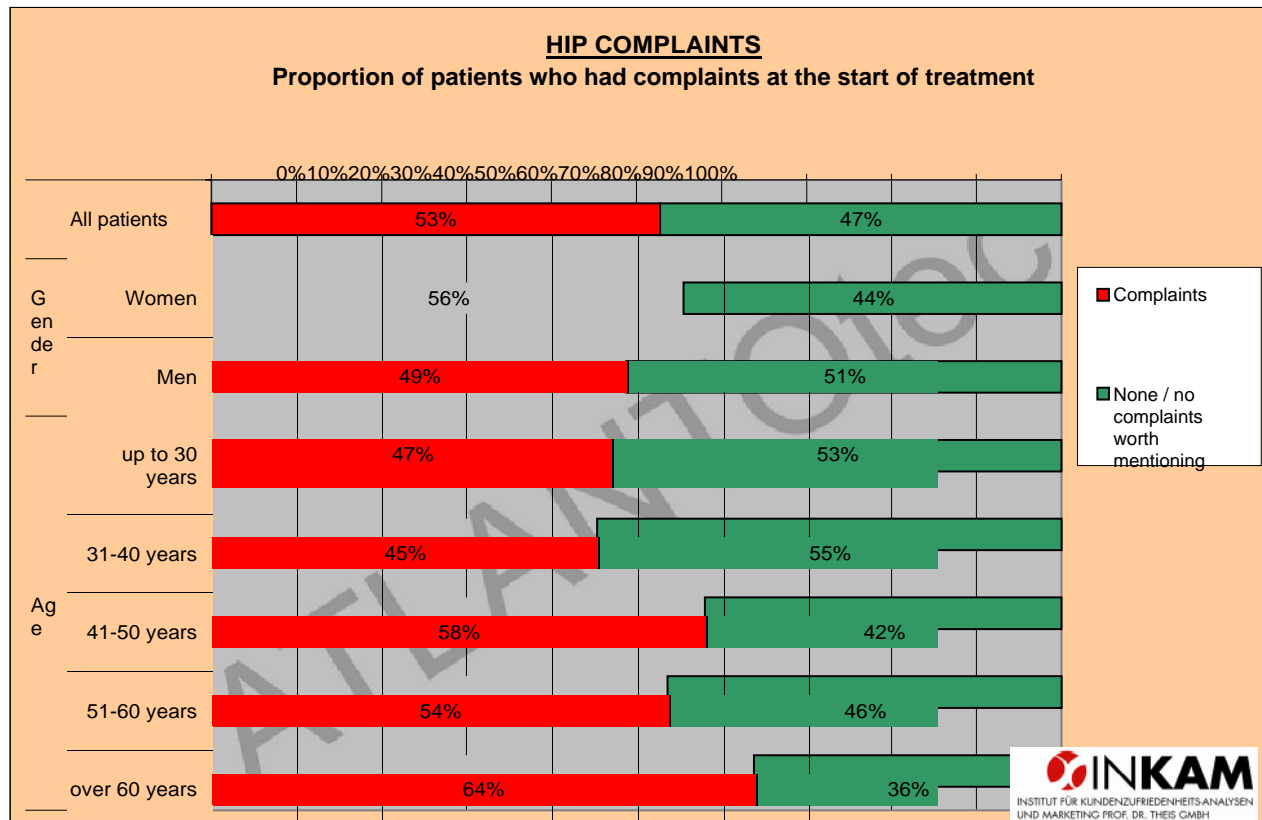
5.12.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of <u>severity and frequency for</u> those patients who complained of hip pain at the beginning (scale levels 2-7 for frequency and/or severity) and who have undergone the *ATLANTOtec*®
- have undergone treatment.

HIP COMPLAINTS
Course of complaint frequency and severity in different patient groups

| Group	Complaint-free	improvement	No change	Deterioration
Frequency				
All patients	25%	46%	24%	5%
Wome	28%	52%	14 %6%	
n Men	21%	36%	40%	3%
up to 30 years	24%	47%	29%	0%
31-40 years	27%	49%	22%	2%
41-50 years	25%	47%	25%	4%
51-60 years	19%	45%	27%	8%
over 60 years	35%	41%	14%	11%
Strength				
All patients	25%	44%	26%	4%
Wome	28%	48%	19%	5%
n Men	21%	38%	38%	3%
up to 30 years	24%	45%	31%	0%
31-40 years	27%	45%	27%	2%
41-50 years	25%	45%	26%	4%
51-60 years	19%	45%	26%	10%
over 60 years	35%	38%	22%	5%

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.12.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec®* treatment.
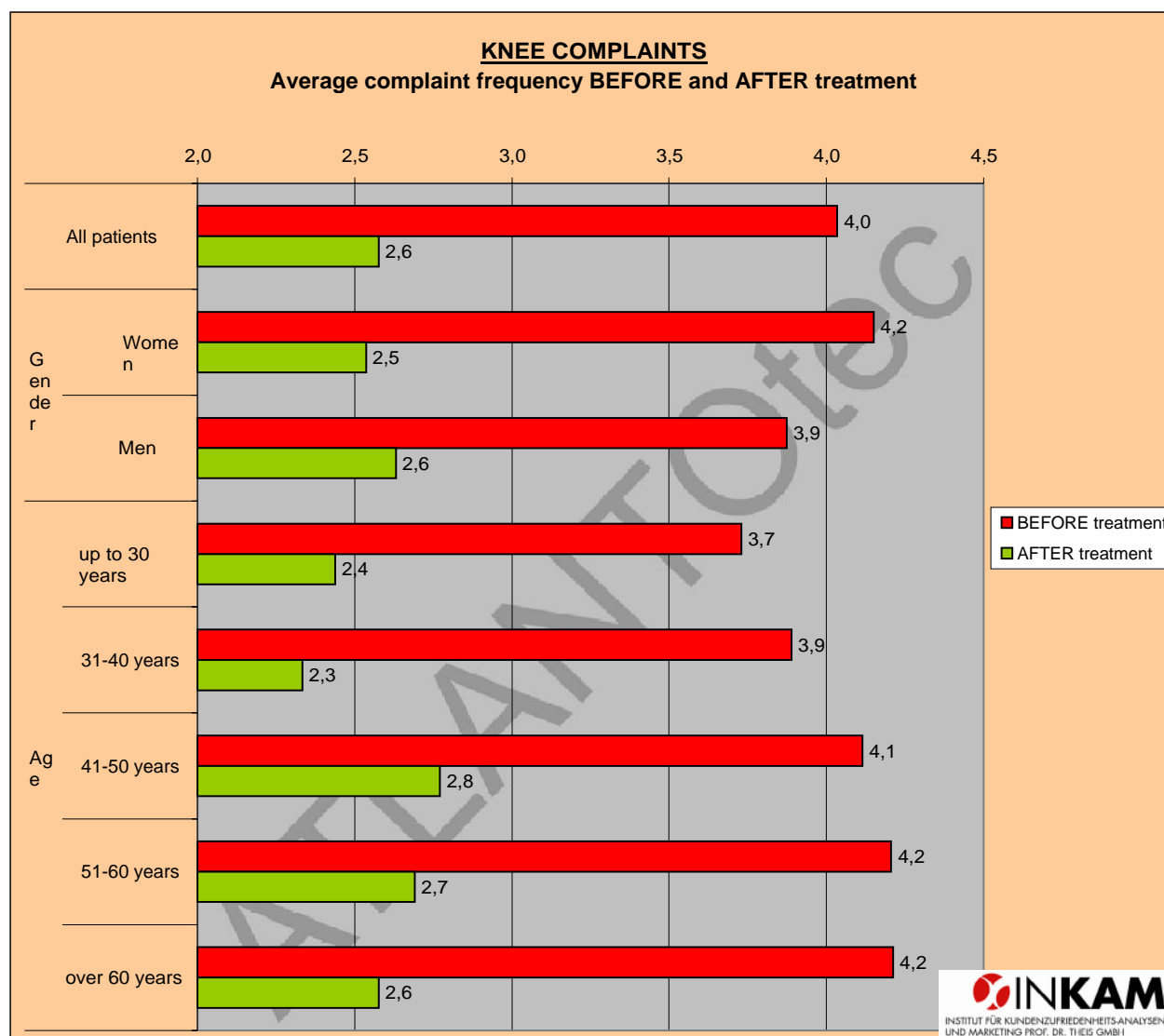
The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of hip complaints.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **11% of** all respondents. For **16%, the** frequency of complaints was reduced by one level, for **40% by** two levels, for **13%** by three levels and for **20% by** four levels. Thus, 20% of all level 5 patients are free of complaints (no/no significant complaints).

HIP COMPLAINTS
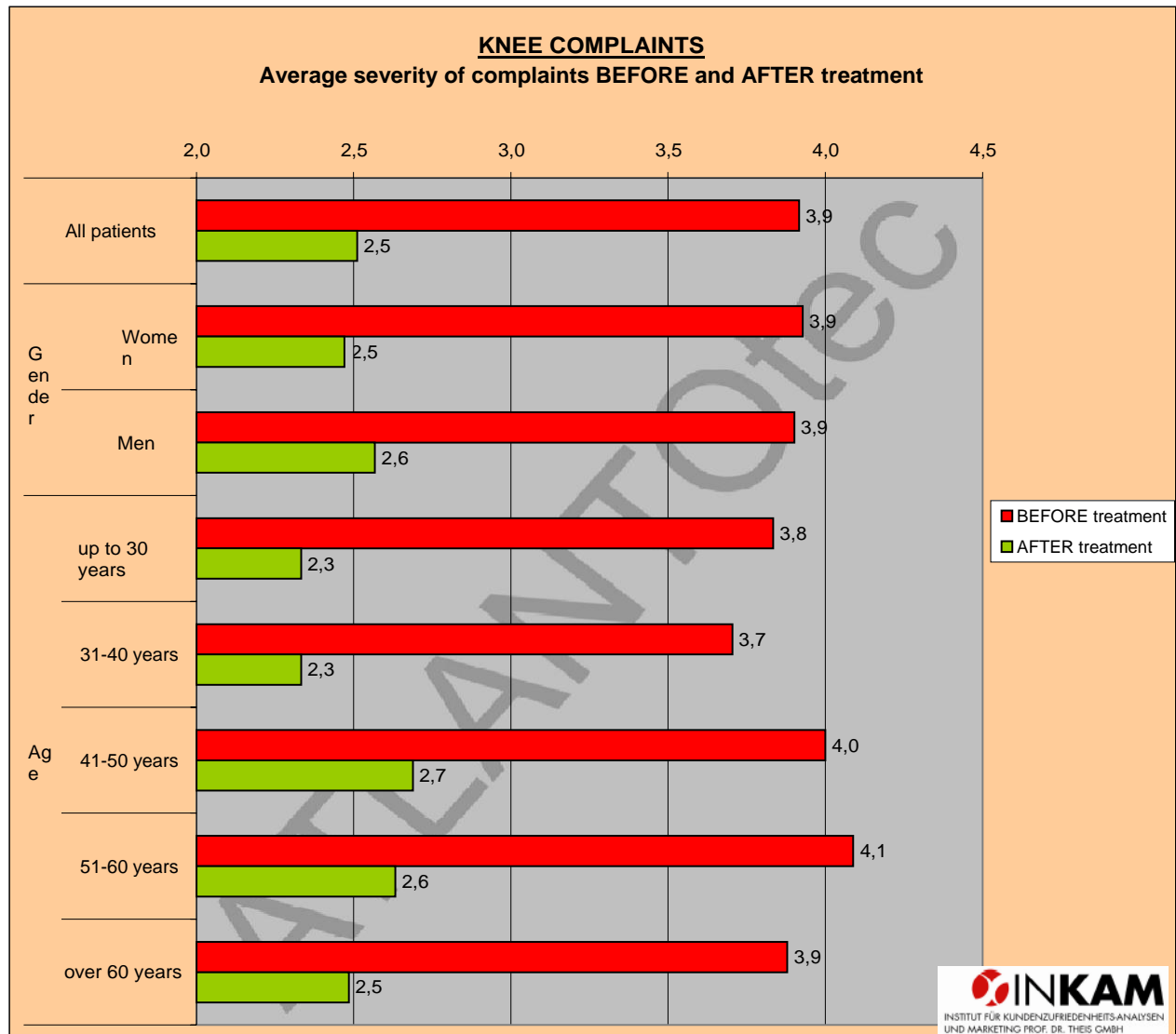**Treatment success as a function of complaint frequency and severity**
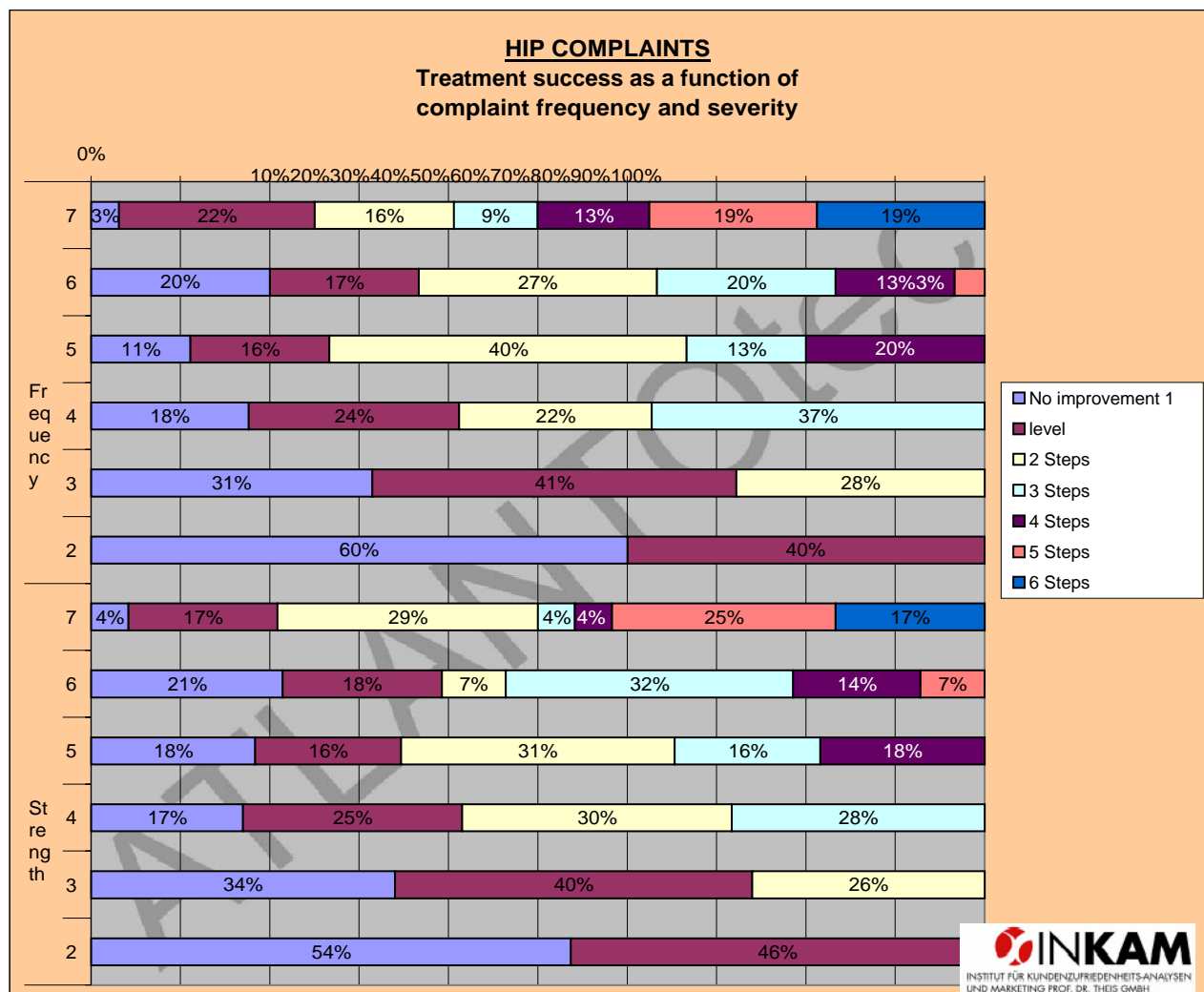
5.12.4 Average complaint frequency BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of *hip complaints* has changed on average for all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.
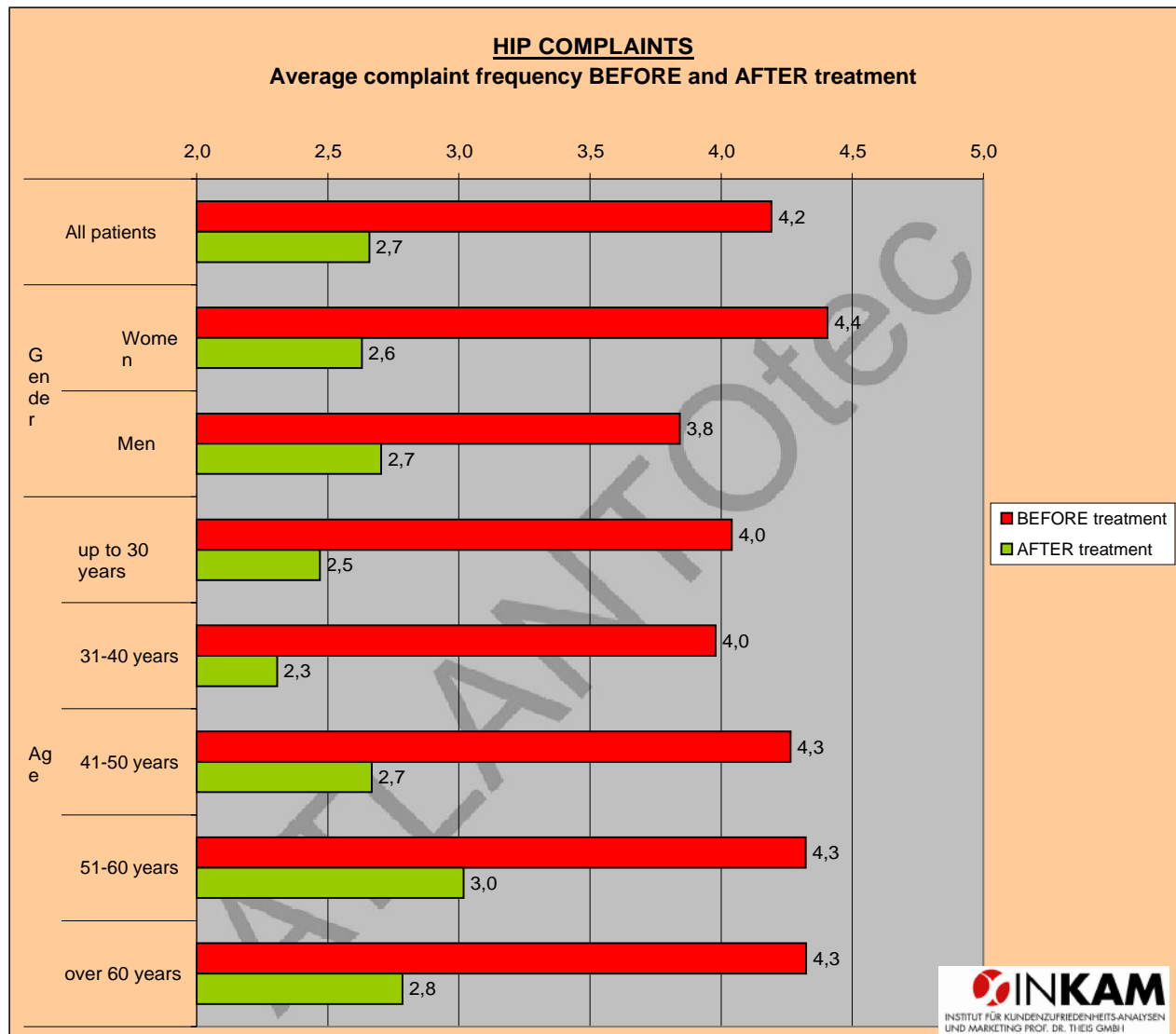
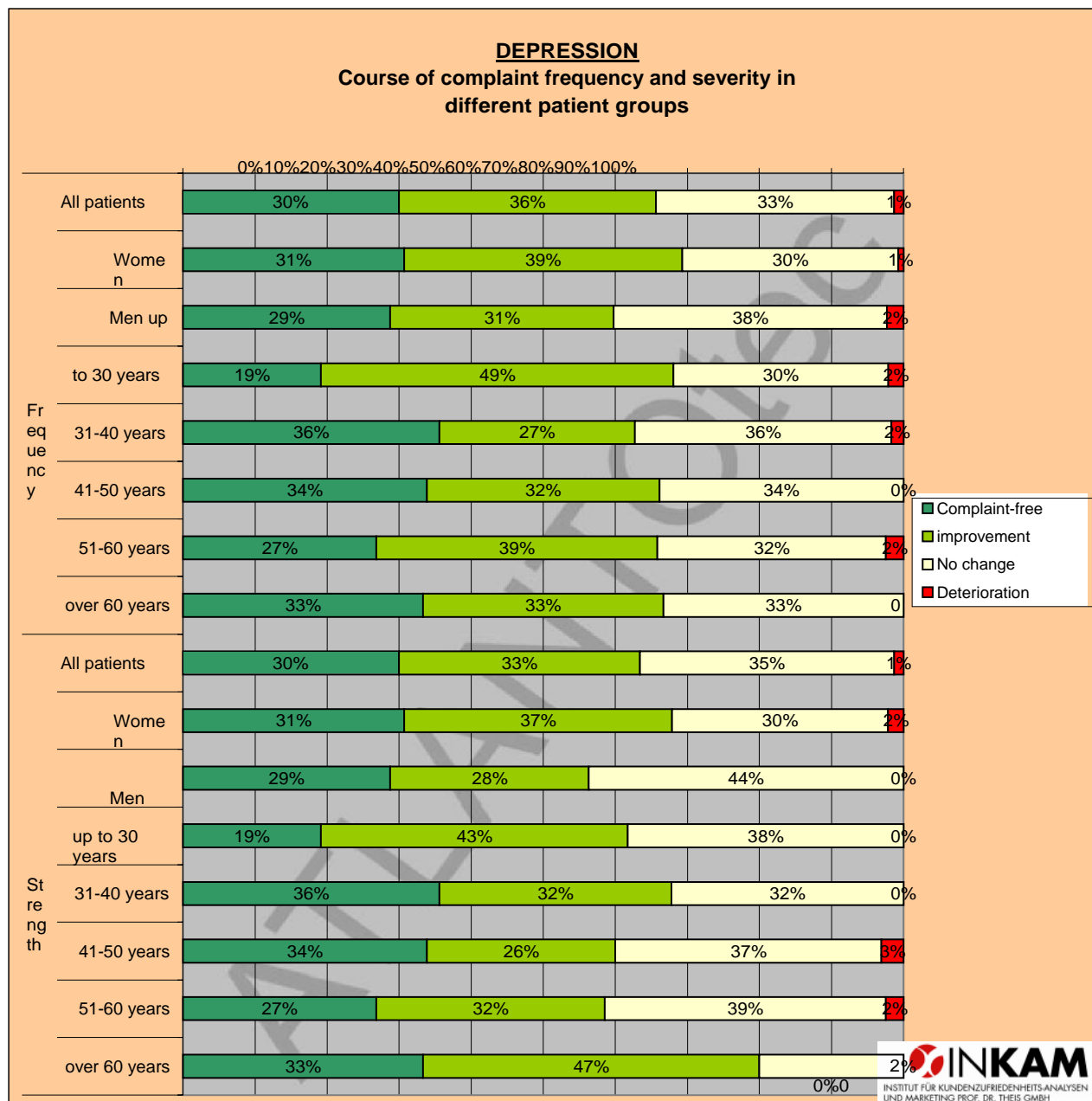## 5.12.5 Average severity of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the severity of **hip complaints** has changed on average for all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

HIP COMPLAINTS
Average severity of complaints BEFORE and AFTER treatment

Group	BEFORE treatment	AFTER treatment
All patients	4,1	2,6
Gender — Women	4,2	2,6
Gender — Men	3,8	2,6
Age — up to 30 years	3,9	2,6
Age — 31-40 years	3,9	2,3
Age — 41-50 years	4,2	2,6
Age — 51-60 years	4,2	2,9
Age — over 60 years	4,1	2,5

5.13 Knee complaints

5.13.1 Complaint status at the beginning of the treatment

The following graph shows what proportion of patients - differentiated according to the various patient groups - suffered from knee pain before treatment.

KNEE COMPLAINTS
Proportion of patients who had complaints at the start of treatment

Group	Complaints	None / none noteworthy
All patients	52%	48%
Women	52%	48%
Men	54%	46%
up to 30 years	46%	54%
31-40 years	50%	50%
41-50 years	49%	51%
51-60 years	62%	38%
over 60 years	57%	43%

5.13.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of <u>severity and frequency for</u> those patients who complained of knee pain at the beginning (scale levels 2-7 for frequency and/or severity) and have undergone the *ATLANTOtec*®
- have undergone treatment.

KNEE COMPLAINTS
Course of complaint frequency and severity in different patient groups

		Complaint-free	improvement	No change	Deterioration
Frequency	All patients	25%	40%	28%	6%
	Women	30%	40%	24%	7%
	Men	20%	41%	35%	4%
	up to 30 years	24%	43%	29%	4%
	31-40 years	25%	42%	26%	7%
	41-50 years	27%	29%	34%	10%
	51-60 years	19%	51%	28%	1%
	over 60 years	37%	31%	23%	9%
Strength	All patients	25%	39%	29%	7%
	Women	30%	35%	27%	8%
	Men	20%	44%	32%	4%
	up to 30 years	24%	43%	31%	2%
	31-40 years	25%	42%	26%	7%
	41-50 years	27%	31%	32%	10%
	51-60 years	19%	49%	28%	4%
	over 60 years	37%	23%	29%	11%

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.13.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of knee complaints.
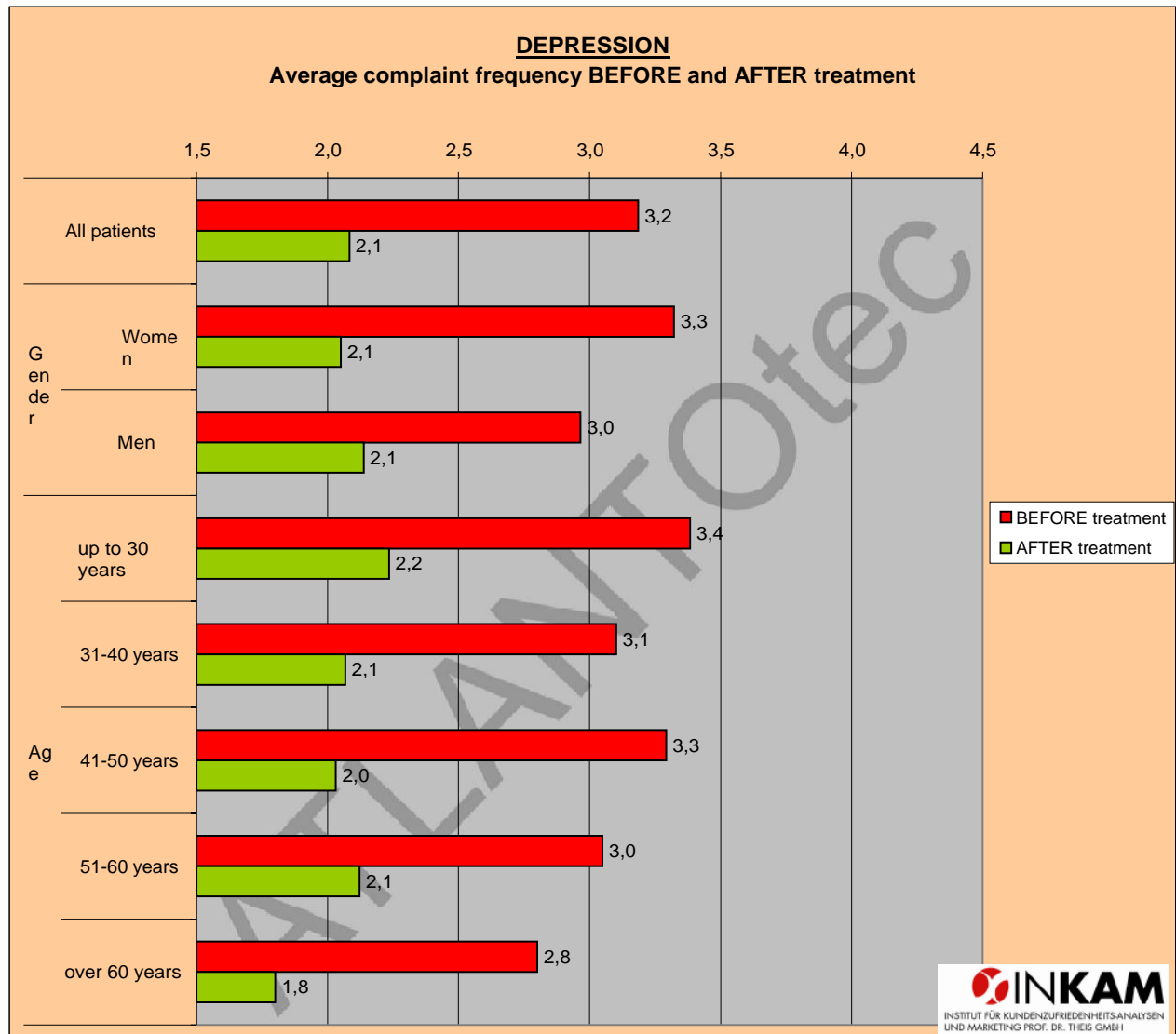
The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **16% of** all respondents. For **19%, the** frequency of complaints was reduced by one level, for **35% by** two levels, for **19% by** three levels and for **11% by** four levels. Consequently, 11% of all level 5 patients are free of complaints (no/no significant complaints).
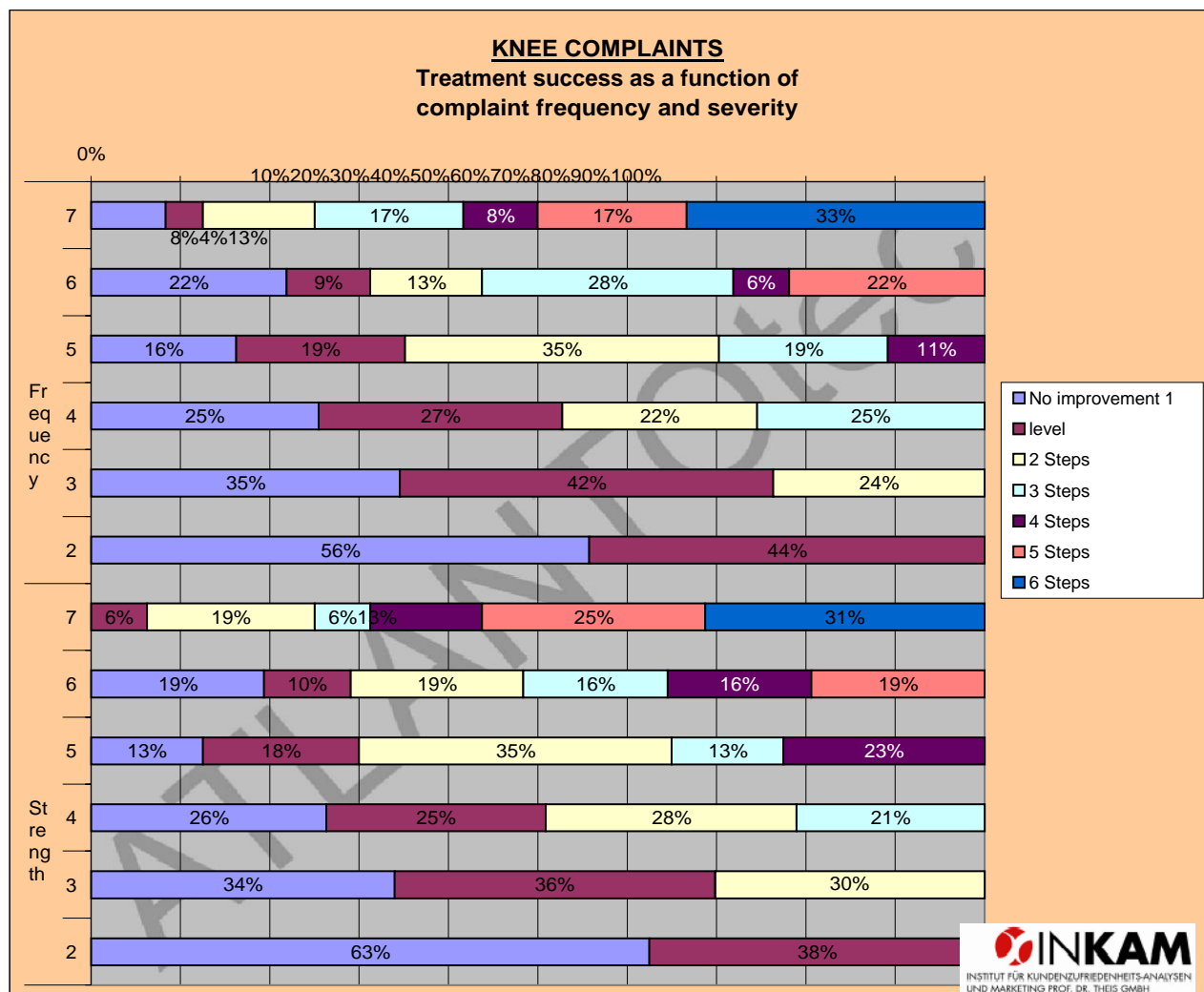
5.13.4 Average complaint frequency BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of **knee complaints** has changed on average for all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

KNEE COMPLAINTS
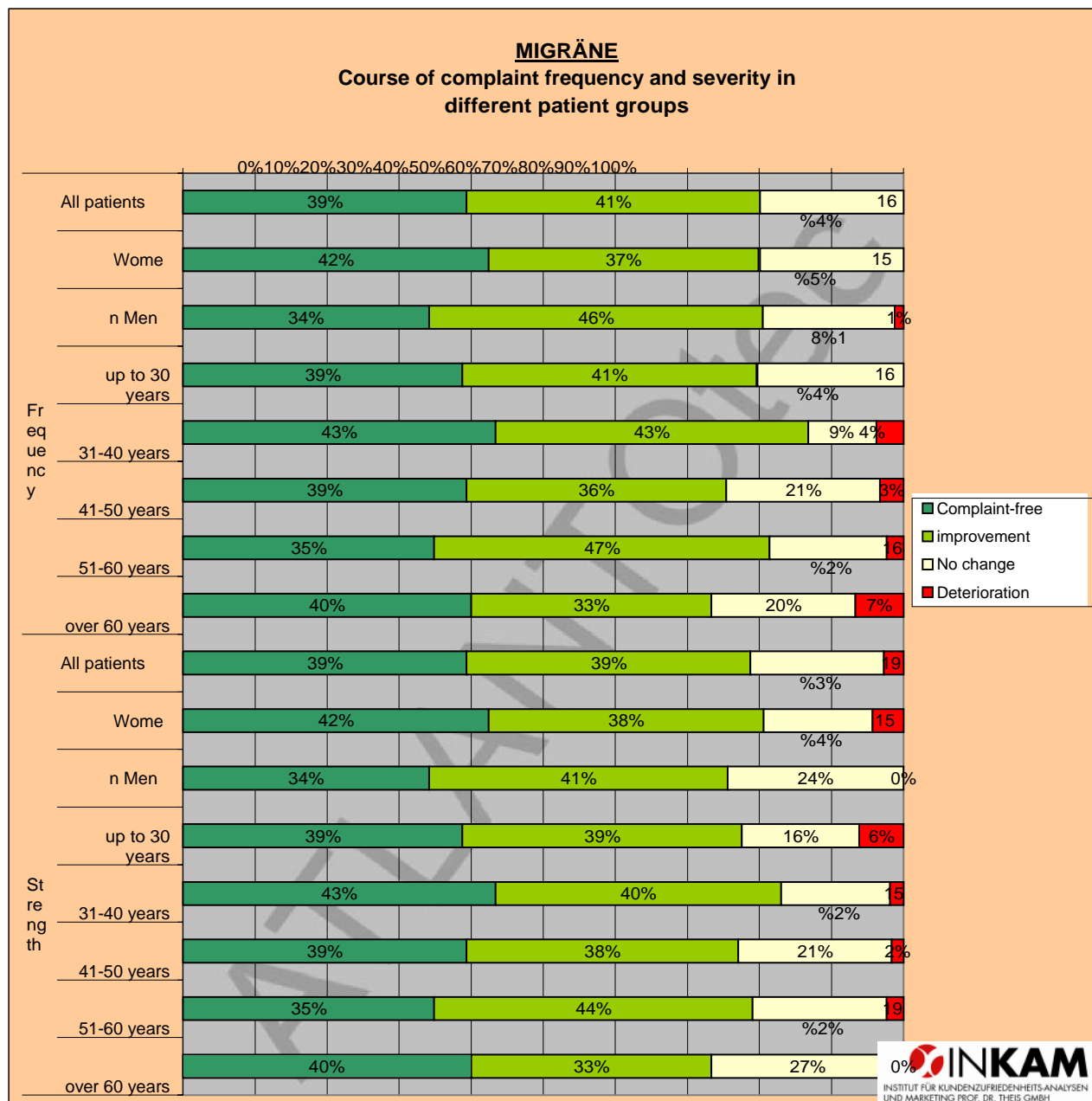**Average complaint frequency BEFORE and AFTER treatment**

Category		BEFORE treatment	AFTER treatment
All patients		4,0	2,6
Gender	Women	4,2	2,5
	Men	3,9	2,6
Age	up to 30 years	3,7	2,4
	31-40 years	3,9	2,3
	41-50 years	4,1	2,8
	51-60 years	4,2	2,7
	over 60 years	4,2	2,6

5.13.5 Average severity of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the severity of **knee complaints** has changed on average for all patients (with complaints before treatment) as a result of the *ATLANTOtec*® treatment.

KNEE COMPLAINTS
Average severity of complaints BEFORE and AFTER treatment

Group		BEFORE treatment	AFTER treatment
All patients		3,9	2,5
Gender	Women	3,9	2,5
	Men	3,9	2,6
Age	up to 30 years	3,8	2,3
	31-40 years	3,7	2,3
	41-50 years	4,0	2,7
	51-60 years	4,1	2,6
	over 60 years	3,9	2,5

5.14 Depression

5.14.1 Complaint status at the beginning of the treatment

The following chart shows the proportion of patients - differentiated according to the various patient groups - who suffered from depression before treatment.
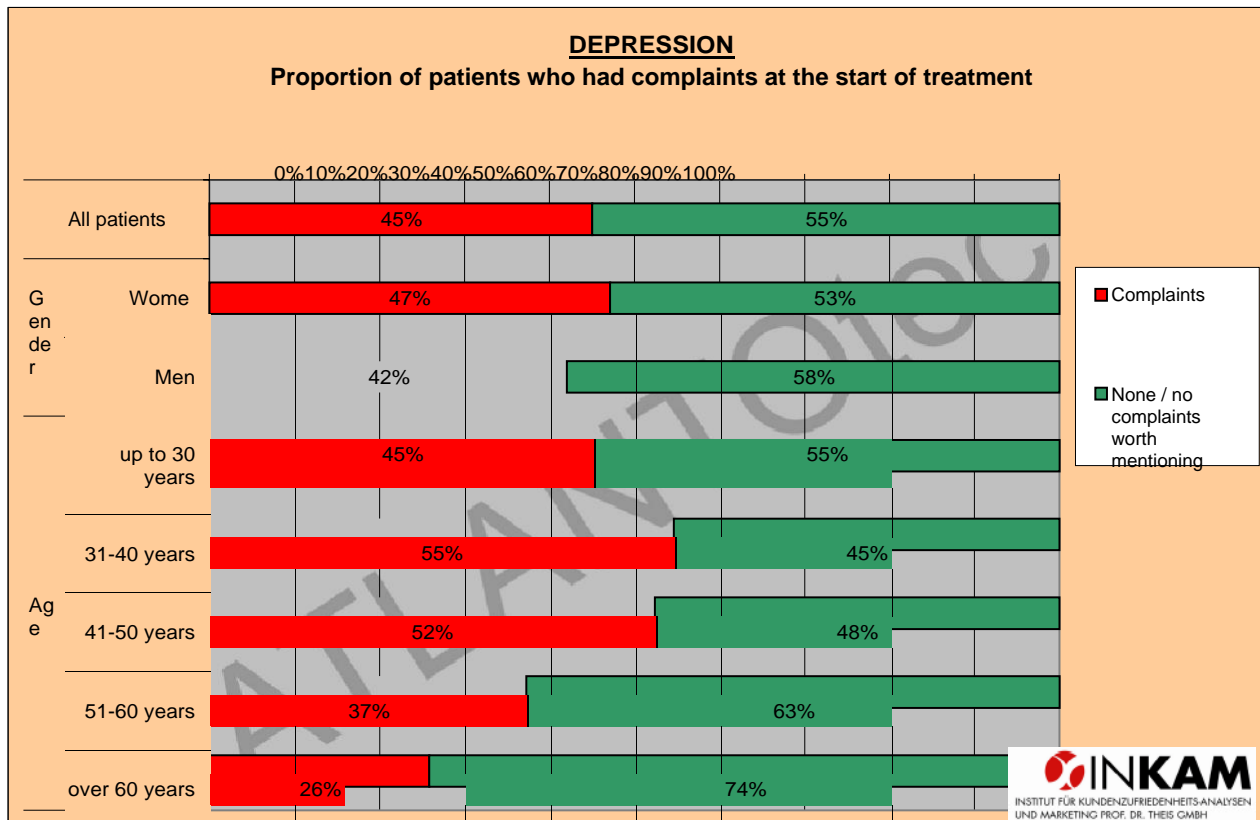
5.14.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of severity and frequency in those patients who complained of depression at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the *ATLANTOtec*® treatment.

DEPRESSION
Course of complaint frequency and severity in different patient groups

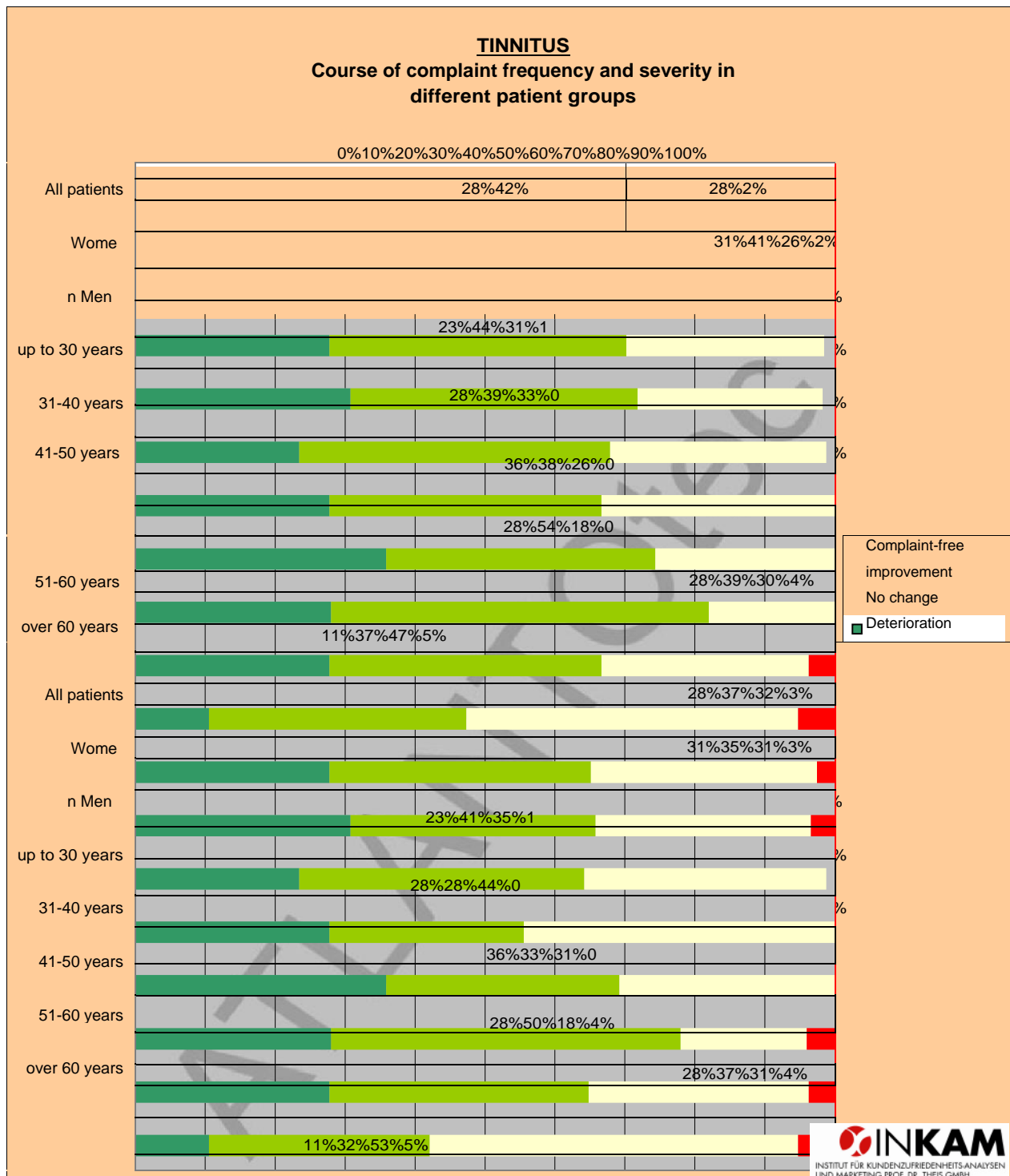|	Complaint-free	improvement	No change	Deterioration
Frequency				
All patients	30%	36%	33%	1%
Women	31%	39%	30%	1%
Men up to 30 years	29%	31%	38%	2%
up to 30 years	19%	49%	30%	2%
31-40 years	36%	27%	36%	2%
41-50 years	34%	32%	34%	0%
51-60 years	27%	39%	32%	2%
over 60 years	33%	33%	33%	0
Strength				
All patients	30%	33%	35%	1%
Women	31%	37%	30%	2%
Men	29%	28%	44%	0%
up to 30 years	19%	43%	38%	0%
31-40 years	36%	32%	32%	0%
41-50 years	34%	26%	37%	3%
51-60 years	27%	32%	39%	2%
over 60 years	33%	47%	0%	0

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.14.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of depression.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **19%** of all respondents. In **5%, the** frequency of complaints was reduced by one level, in **38% by** two levels, in **38%** by three levels and in **0% by** four levels. Thus, 0% of all level 5 patients are free of complaints (no/no significant complaints).
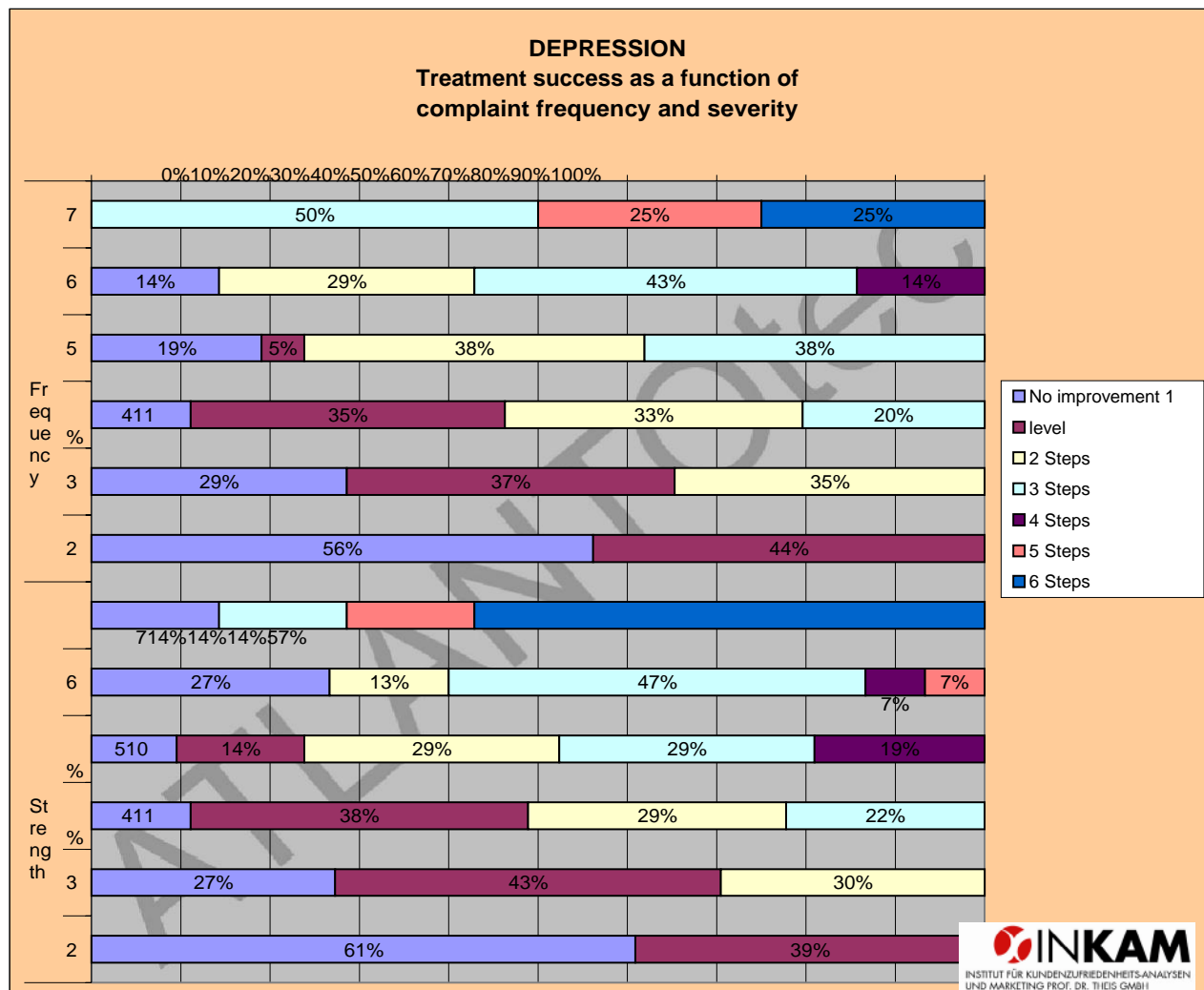
DEPRESSION
Treatment success as a function of complaint frequency and severity

5.14.4 Average complaint frequency BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of complaints of *depression* has changed on average over all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

DEPRESSION
Average complaint frequency BEFORE and AFTER treatment

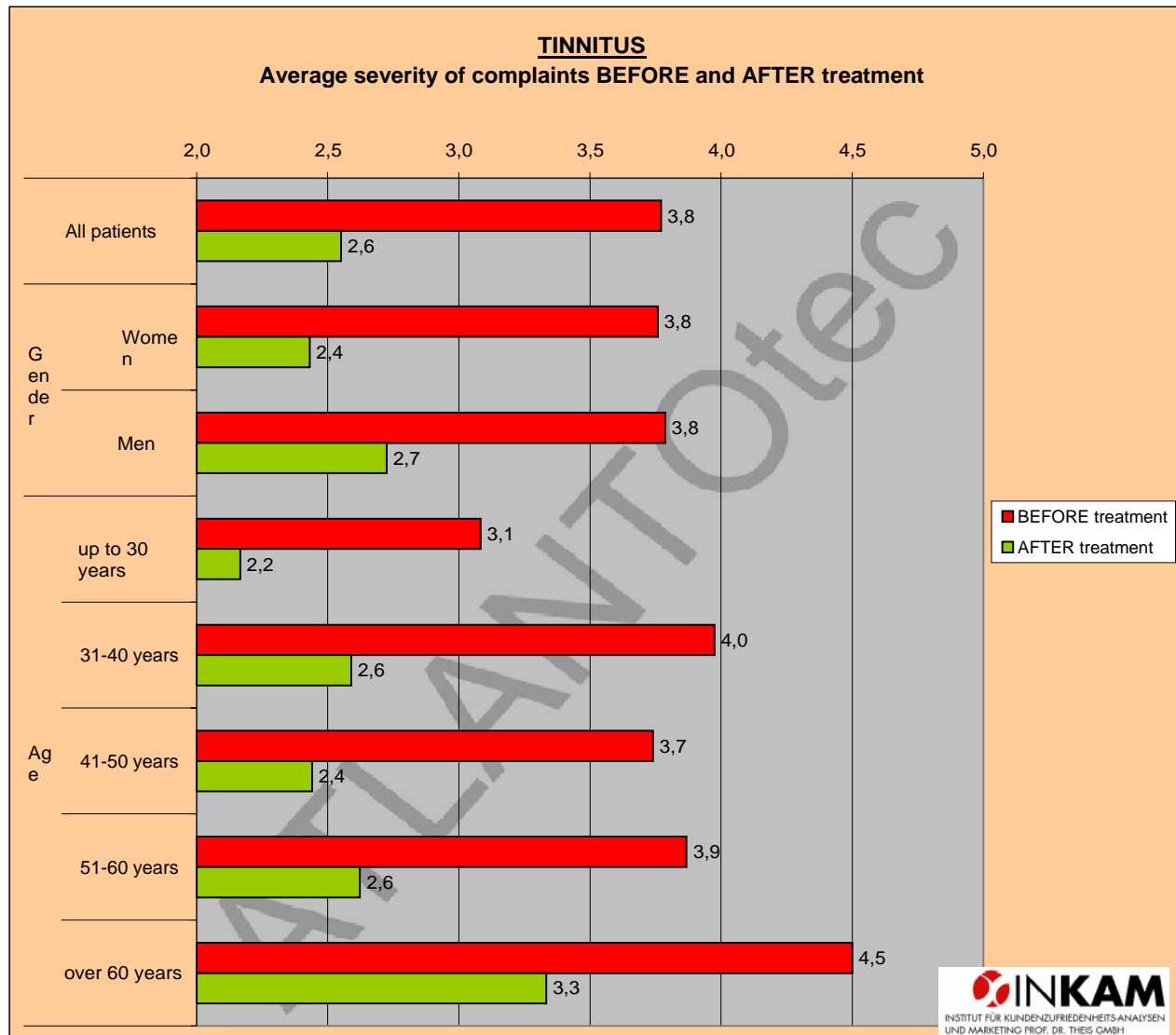| Patient group	BEFORE treatment	AFTER treatment
All patients	3,2	2,1
Gender – Women	3,3	2,1
Gender – Men	3,0	2,1
Age – up to 30 years	3,4	2,2
Age – 31-40 years	3,1	2,1
Age – 41-50 years	3,3	2,0
Age – 51-60 years	3,0	2,1
Age – over 60 years	2,8	1,8

![INKAM logo]

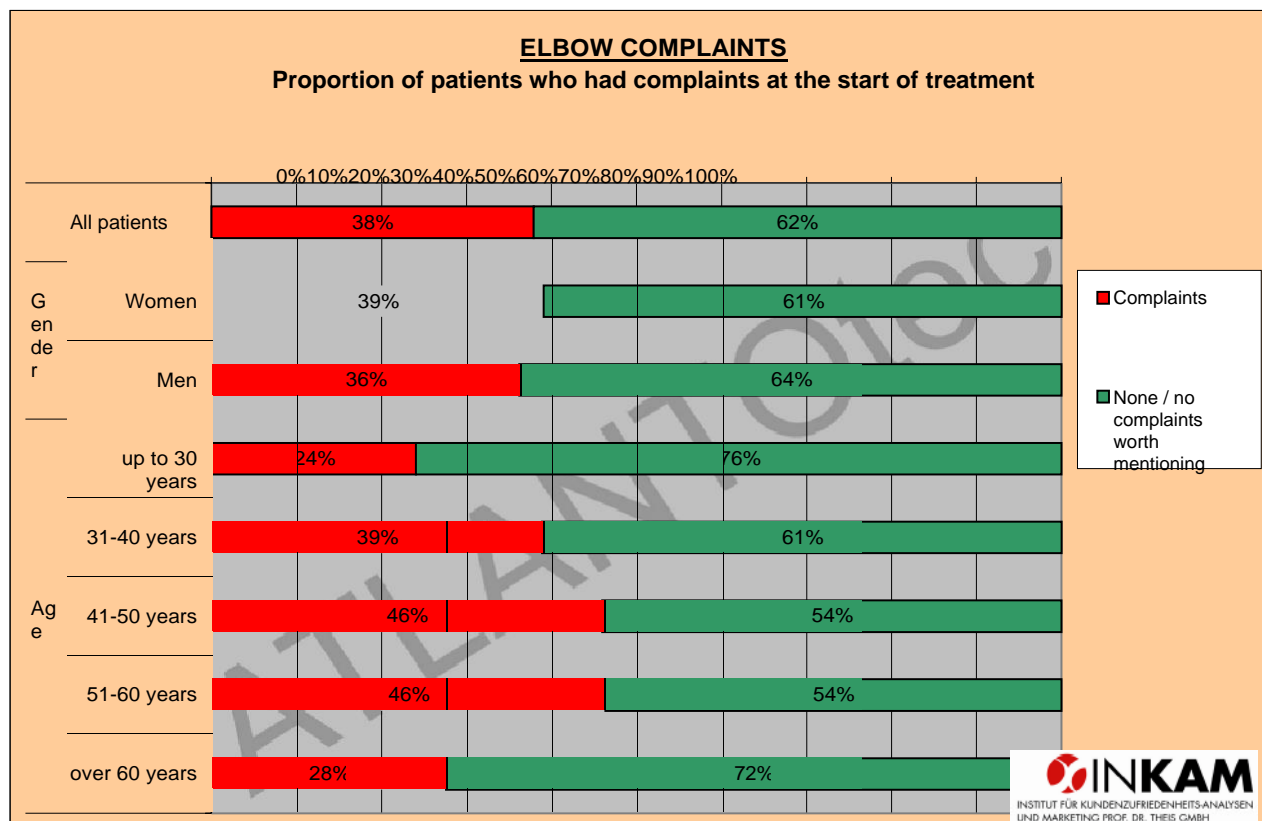## 5.14.5 Average severity of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the severity of complaints of *depression* has changed on average over all patients (with complaints before treatment) as a result of the *ATLANTOtec*® treatment.

5.15 Migraine

5.15.1 Complaint status at the beginning of the treatment

The following graph shows what proportion of patients - differentiated according to the various patient groups - suffered from migraine before treatment.

MIGRÄNE
Proportion of patients who had complaints at the start of treatment

Group	Complaints	None / no complaints worth mentioning
All patients	44%	56%
Gender – Women	46%	54%
Gender – Men	40%	60%
Age – up to 30 years	46%	54%
Age – 31-40 years	49%	51%
Age – 41-50 years	49%	51%
Age – 51-60 years	39%	61%
Age – over 60 years	26%	74%
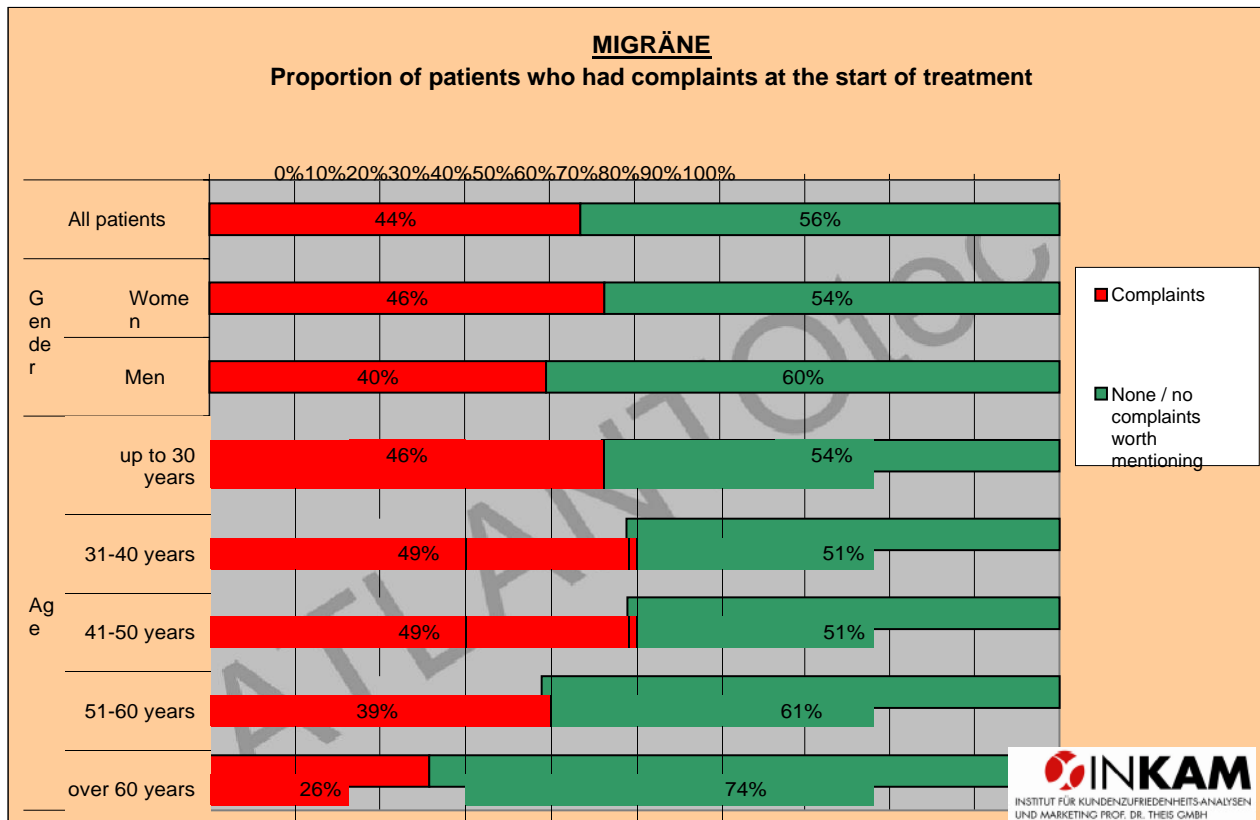
5.15.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the symptoms in terms of severity and frequency in those patients who complained of migraine at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the *ATLANTOtec®* treatment.

MIGRÄNE
Course of complaint frequency and severity in different patient groups

Legend: Complaint-free, improvement, No change, Deterioration

Frequency	Complaint-free	improvement	No change	Deterioration
All patients	39%	41%	16%	4%
Wome	42%	37%	15%	5%
n Men	34%	46%	18%	1%
up to 30 years	39%	41%	16%	4%
31-40 years	43%	43%	9%	4%
41-50 years	39%	36%	21%	3%
51-60 years	35%	47%	16%	2%
over 60 years	40%	33%	20%	7%

| Strength	Complaint-free	improvement	No change	Deterioration
All patients	39%	39%	19%	3%
Wome	42%	38%	15%	4%
n Men	34%	41%	24%	0%
up to 30 years	39%	39%	16%	6%
31-40 years	43%	40%	15%	2%
41-50 years	39%	38%	21%	2%
51-60 years	35%	44%	19%	2%
over 60 years	40%	33%	27%	0%

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.15.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensity (complaint frequency and severity) in the complaint field of migraine.
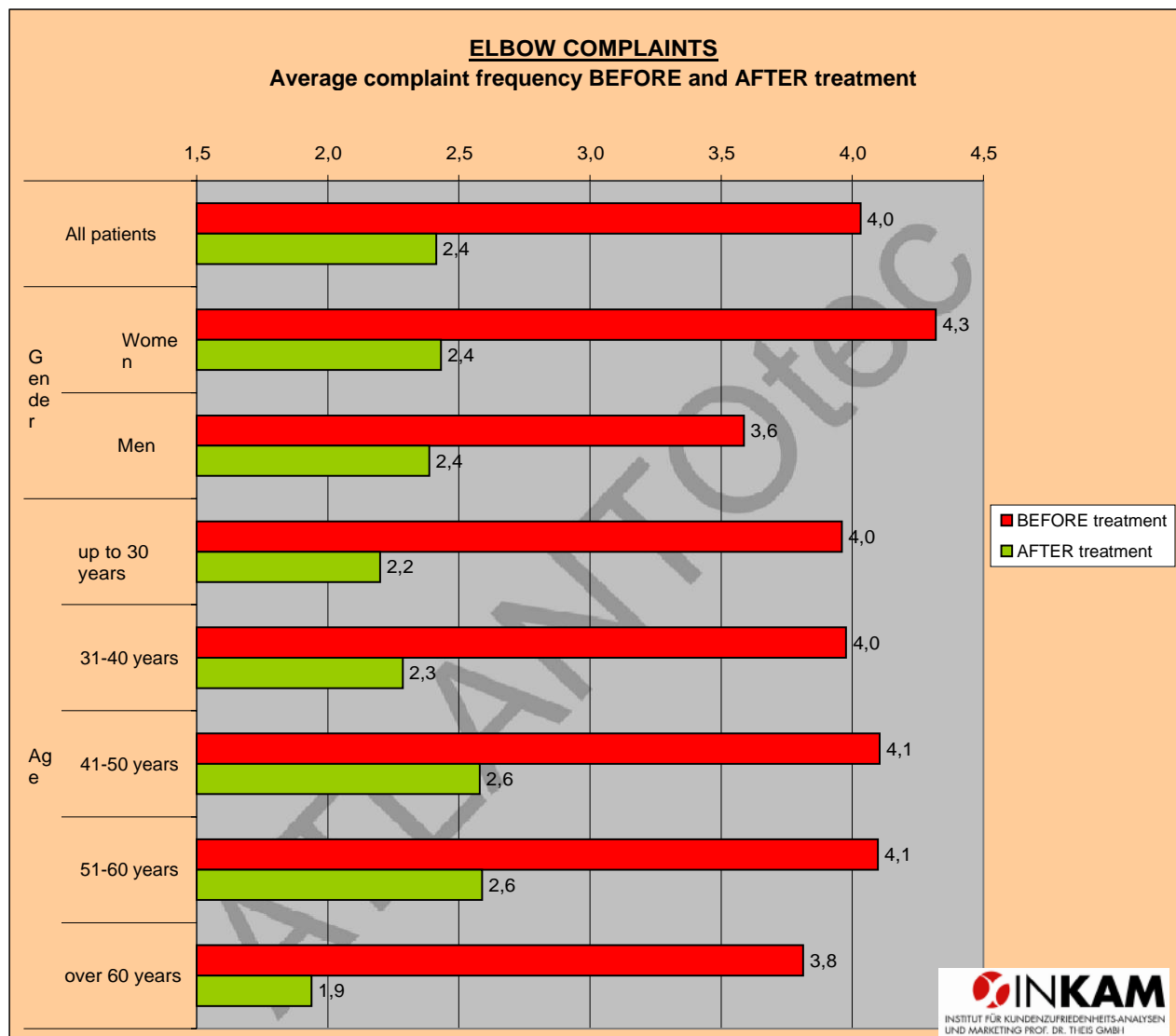
The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **0% of** all respondents. In **6%, the** frequency of complaints was reduced by one level, in **24% by** two levels, in **36%** by three levels and in **33% by** four levels. Thus, 33% of all level 5 patients are free of complaints (no/no significant complaints).

MIGRÄNE
**Treatment success as a function of complaint frequency and severity**
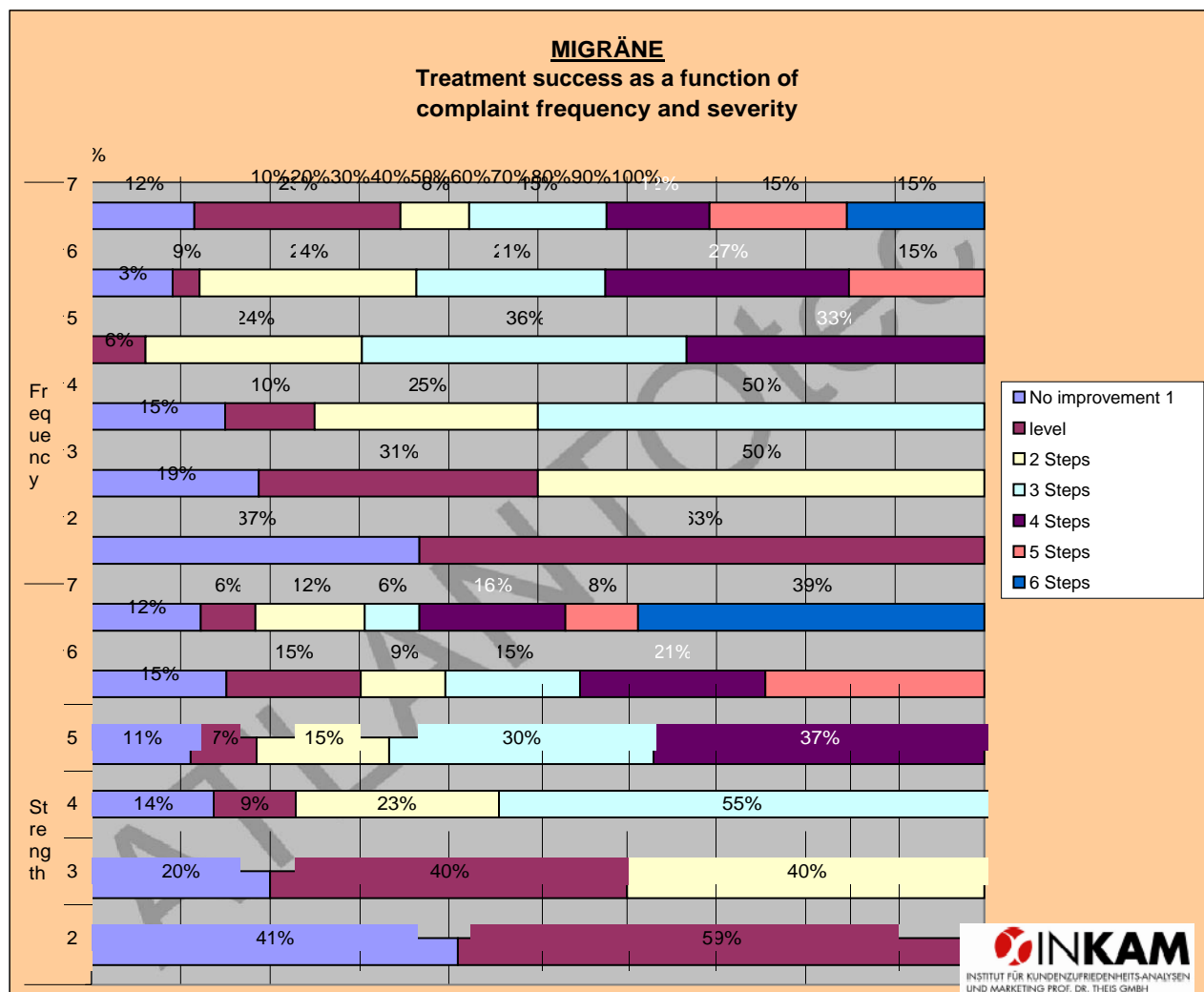
5.15.4 Average complaint frequency BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of _migraine_ complaints changed on average across all patients (with complaints before treatment) as a result of the _ATLANTOtec®_ treatment.

MIGRÄNE
Average complaint frequency BEFORE and AFTER treatment

Group	BEFORE treatment	AFTER treatment
All patients	4,2	2,3
Gender — Women	4,3	2,3
Gender — Men	4,1	2,2
Age — up to 30 years	4,4	2,3
Age — 31-40 years	4,1	
Age — 41-50 years	4,1	2,4
Age — 51-60 years	4,2	2,4
Age — over 60 years	4,2	2,3
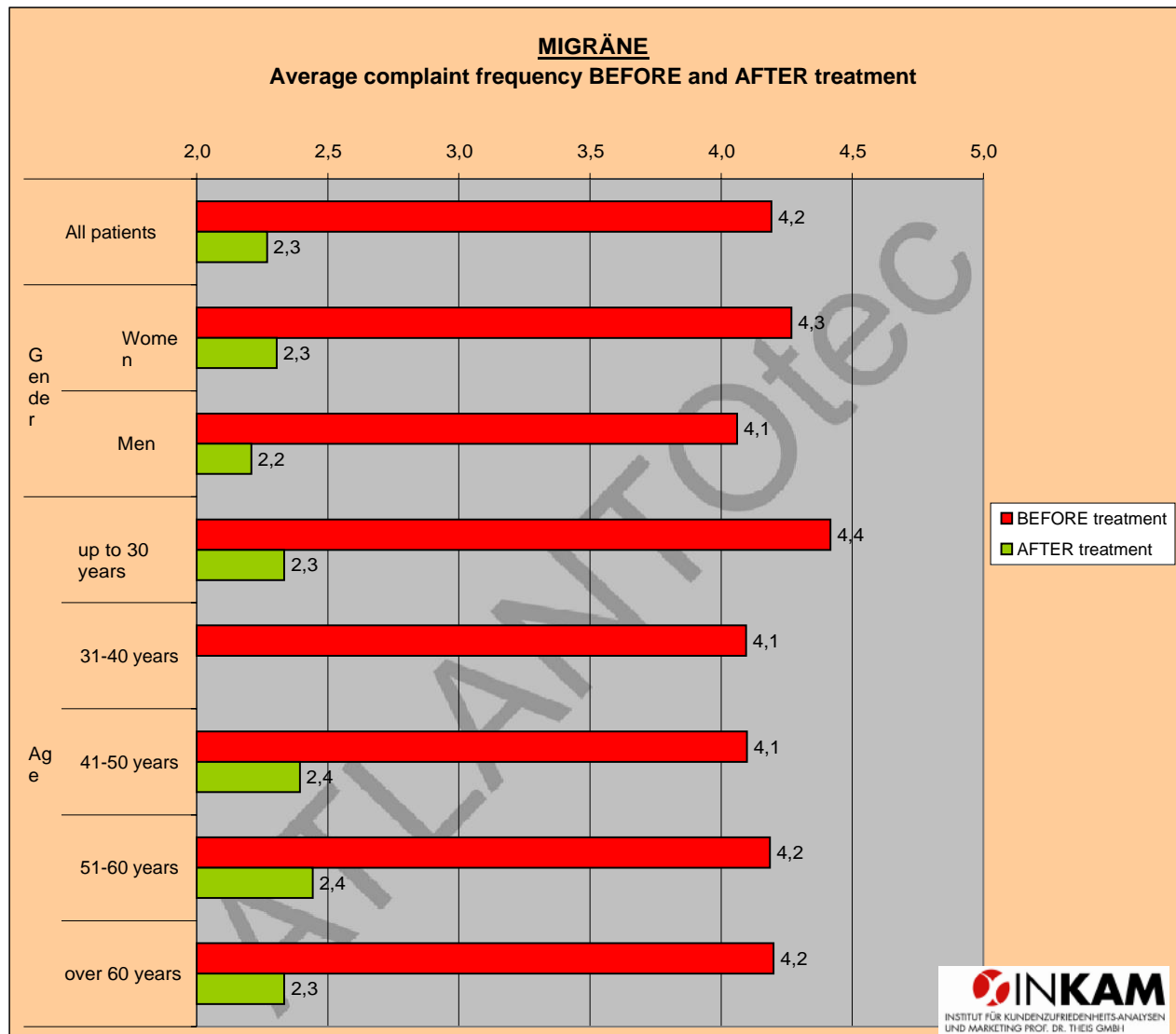
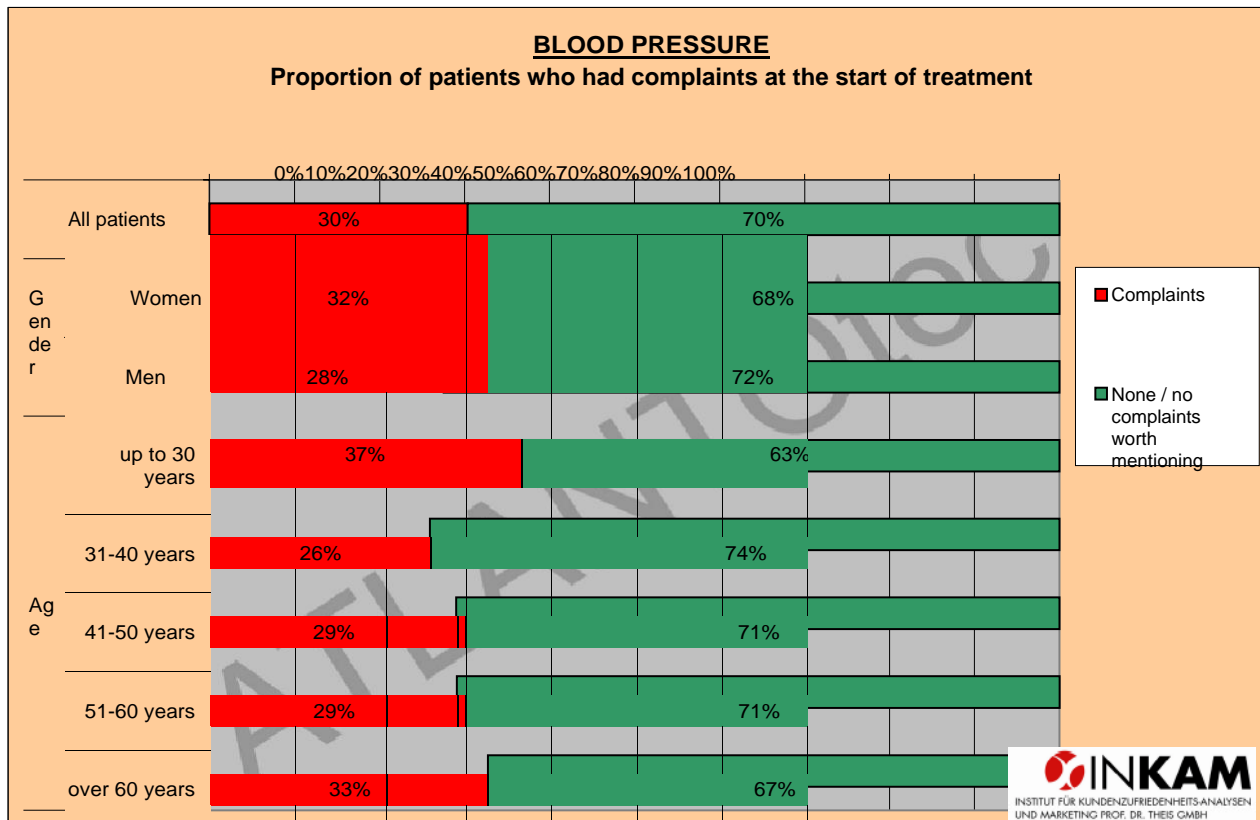## 5.15.5 Average severity of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the severity of *migraine* symptoms changed on average across all patients (with symptoms before treatment) as a result of the *ATLANTOtec®* treatment.

MIGRÄNE
Average severity of complaints BEFORE and AFTER treatment

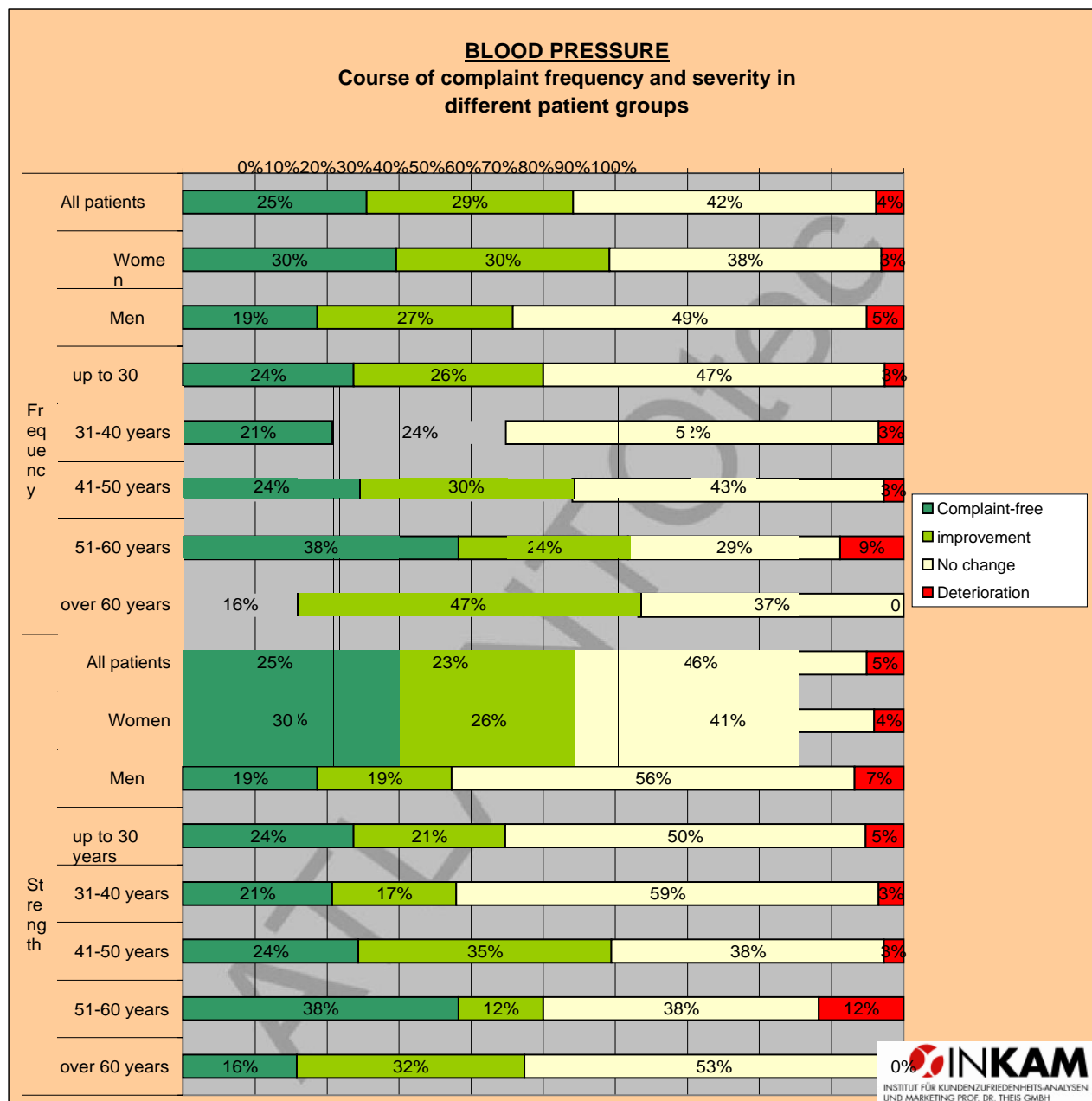| Group		BEFORE treatment	AFTER treatment
All patients		4,8	2,5
Gender	Women		2,5
	Men	4,4	2,5
Age	up to 30 years	4	2,7
	31-40 years	4,8	2,2
	41-50 years	4,9	2,7
	51-60 years	4,6	2,5
	over 60 years	4,7	2,3
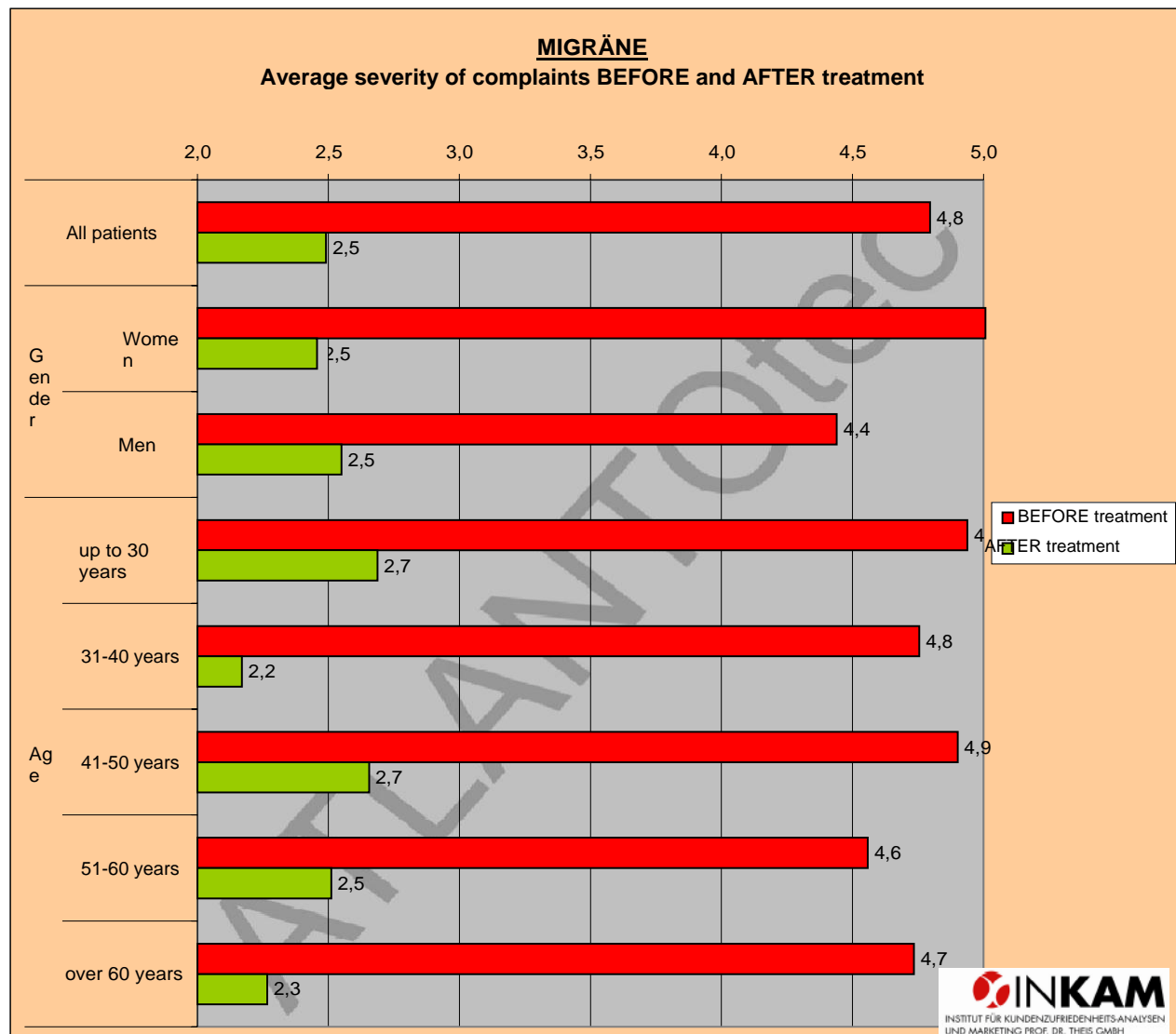
5.16 Tinnitus (ringing in the ears)

5.16.1 Complaint status at the beginning of the treatment

The following graph shows what proportion of patients - differentiated according to the various patient groups - suffered from tinnitus before treatment.

TINNITUS
Proportion of patients who had complaints at the start of treatment

Group		Complaints	None / none noteworthy
	All patients	39%	61%
Gender	Women	39%	61%
	Men	39%	61%
Age	up to 30 years	35%	65%
	31-40 years	36%	64%
	41-50 years	40%	60%
	51-60 years	48%	52%
	over 60 years	31%	69%
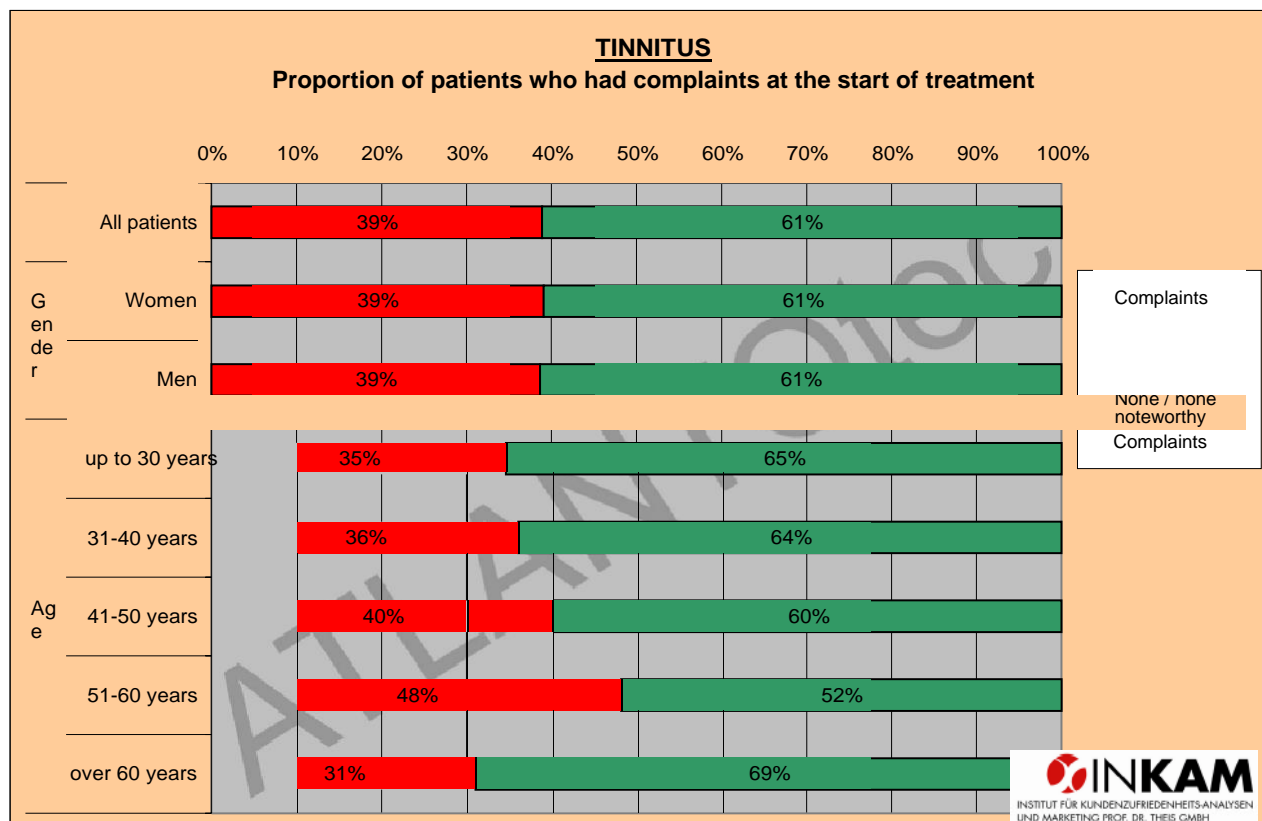
5.16.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of severity and frequency for those patients who complained of tinnitus at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the *ATLANTOtec*® treatment.

TINNITUS
Course of complaint frequency and severity in different patient groups

0%10%20%30%40%50%60%70%80%90%100%

Group		
All patients	28%42%	28%2%
Women		31%41%26%2%
Men		%
up to 30 years	23%44%31%1	%
31-40 years	28%39%33%0	%
41-50 years	36%38%26%0	%
	28%54%18%0	
51-60 years	28%39%30%4%	
over 60 years	11%37%47%5%	
All patients	28%37%32%3%	
Women	31%35%31%3%	
Men		%
up to 30 years	23%41%35%1	%
31-40 years	28%28%44%0	%
41-50 years	36%33%31%0	
51-60 years	28%50%18%4%	
over 60 years	28%37%31%4%	
	11%32%53%5%	

Legend:
Complaint-free
improvement
No change
Deterioration

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or

no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.16.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of tinnitus.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **27% of** all respondents. For **18%, the** frequency of complaints was reduced by one level, for **18% by** two levels, for **14%** by three levels and for **23% by** four levels. Consequently, 23% of all level 5 patients are free of complaints (no/no significant complaints).
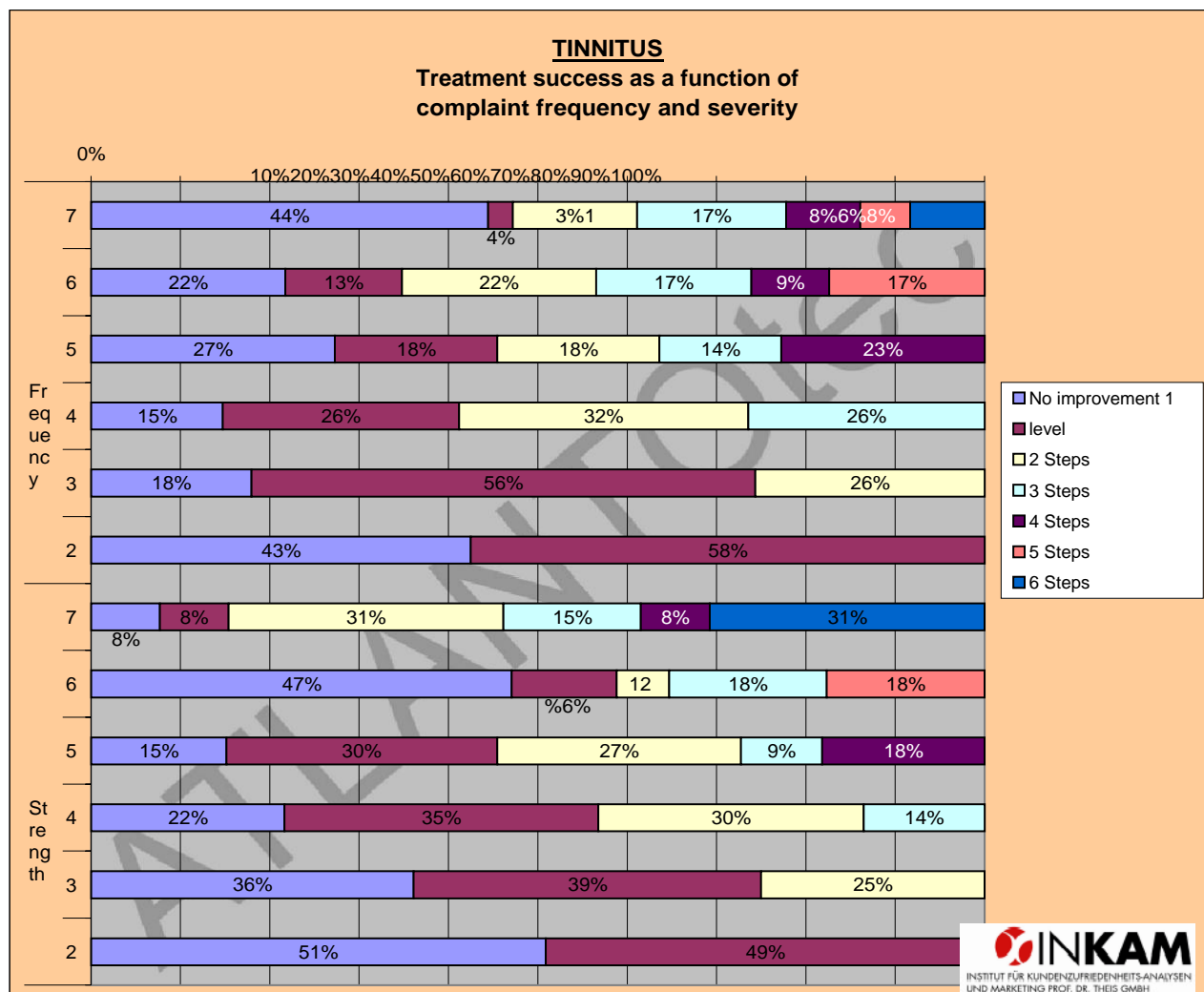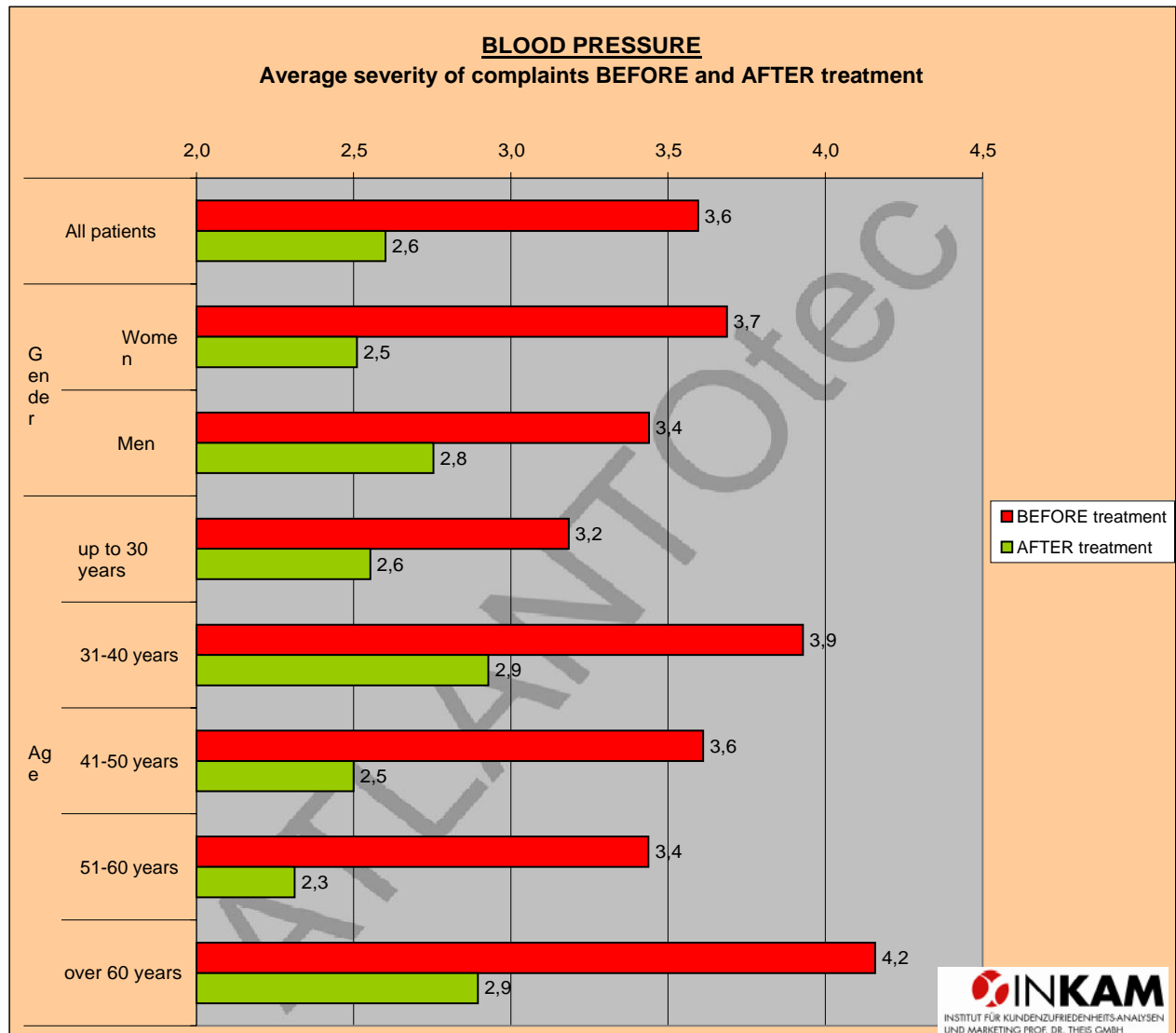
5.16.4 Average complaint frequency BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of *tinnitus* complaints has changed on average over all patients (with complaints before treatment) as a result of the ATLANTOtec® treatment.

TINNITUS
Average complaint frequency BEFORE and AFTER treatment

Group	BEFORE treatment	AFTER treatment
All patients	4,3	2,8
Gender – Women	4,2	2,7
Gender – Men	4,5	3,0
Age – up to 30 years	3,6	2,5
Age – 31-40 years	4,4	2,8
Age – 41-50 years	4,4	2,7
Age – 51-60 years	4,4	2,9
Age – over 60 years		3,8
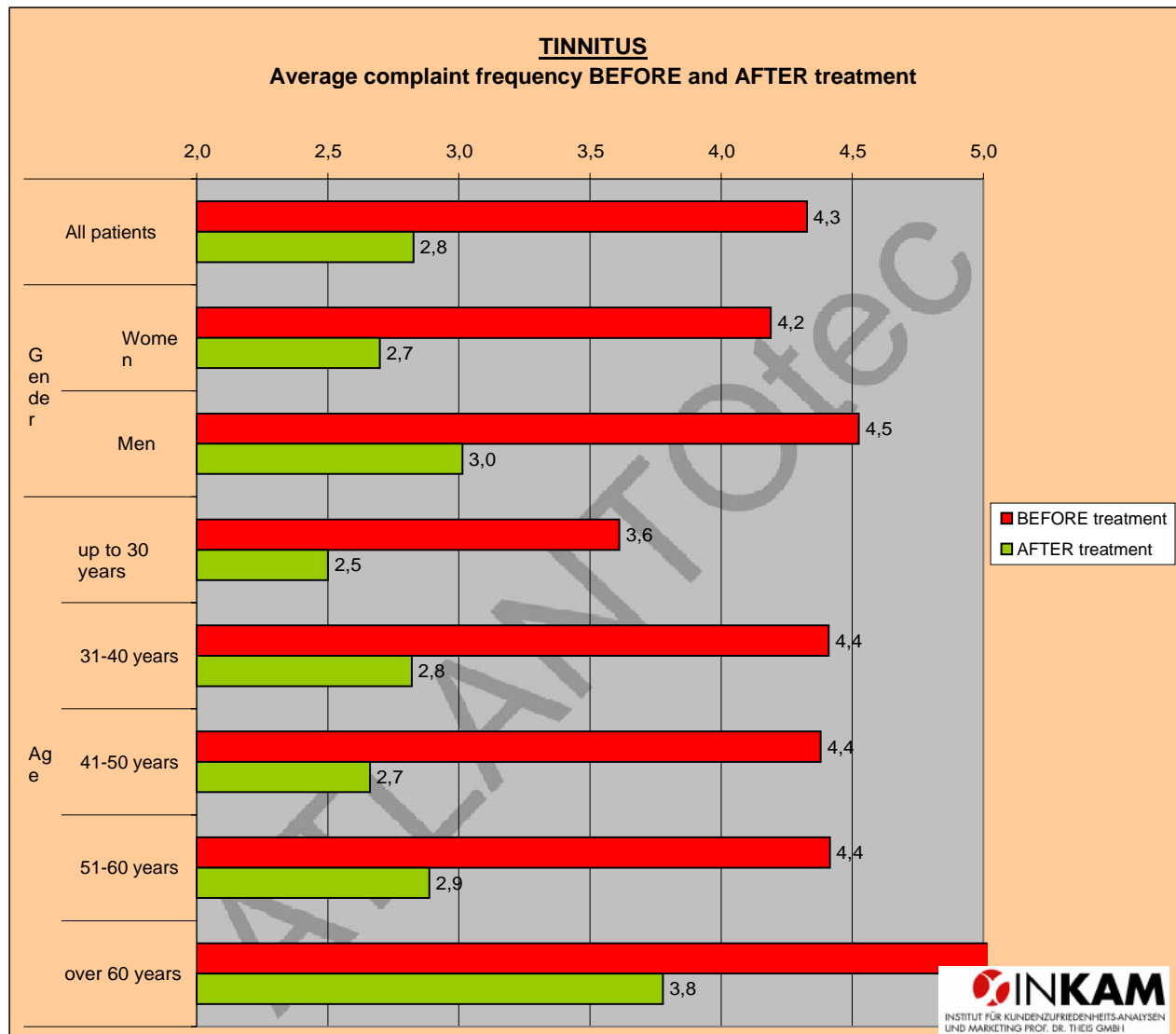
5.16.5 Average severity of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the severity of *tinnitus complaints* has changed on average over all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

TINNITUS
Average severity of complaints BEFORE and AFTER treatment

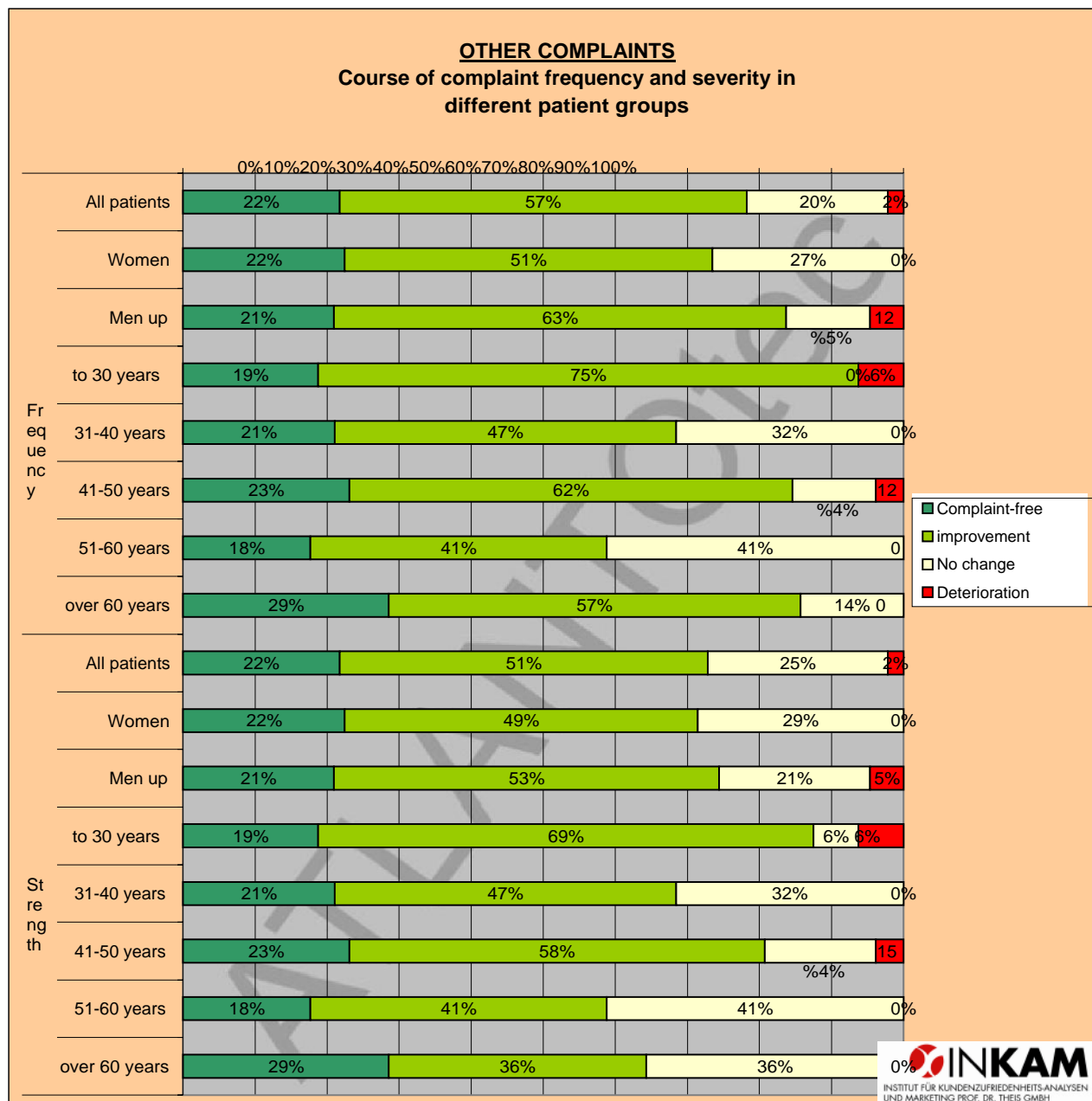| Group		BEFORE treatment	AFTER treatment
All patients		3,8	2,6
Gender	Women	3,8	2,4
	Men	3,8	2,7
Age	up to 30 years	3,1	2,2
	31-40 years	4,0	2,6
	41-50 years	3,7	2,4
	51-60 years	3,9	2,6
	over 60 years	4,5	3,3

5.17 Elbow complaints

5.17.1 Complaint status at the beginning of the treatment

The following graph shows the proportion of patients - differentiated according to the various patient groups - who suffered from elbow pain before treatment.

ELBOW COMPLAINTS
Proportion of patients who had complaints at the start of treatment

Group	Complaints	None / no complaints worth mentioning
All patients	38%	62%
Women	39%	61%
Men	36%	64%
up to 30 years	24%	76%
31-40 years	39%	61%
41-50 years	46%	54%
51-60 years	46%	54%
over 60 years	28%	72%

5.17.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of severity and frequency in those patients who complained of elbow complaints at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the *ATLAN-TOtec®* treatment.

ELBOW COMPLAINTS
Course of complaint frequency and severity in different patient groups

	Complaint-free	improvement	No change	Deterioration
Frequency				
All patients	30%	35%	30%	5%
Women	34%	39%	22%	4%
Men	23%	29%	41%	6%
up to 30 years	32%	18%	39%	11%
31-40 years	31%	38%	29%	2%
41-50 years	26%	33%	32%	9%
51-60 years	23%	46%	29%	2%
over 60 years	56%	31%	13%	0
Strength				
All patients	30%	34%	31%	5%
Women	34%	36%	26%	4%
Men	23%	32%	40%	5%
up to 30 years	32%	25%	29%	14%
31-40 years	31%	33%	36%	0%
41-50 years	26%	33%	35%	5%
51-60 years	23%	42%	31%	4%
over 60 years	56%	31%	13%	0 %

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.17.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.
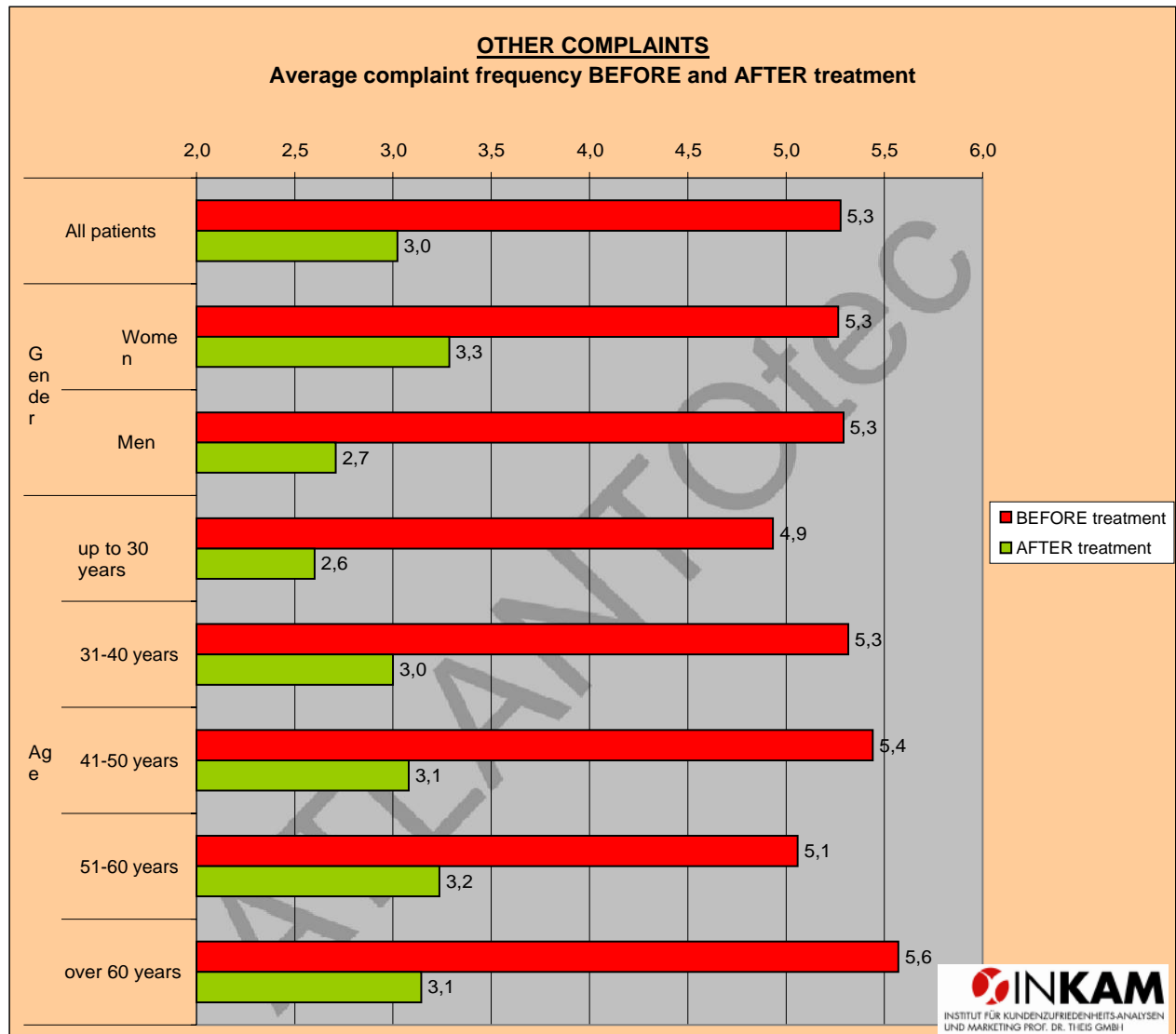
The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of elbow complaints.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **5% of** all respondents. For **10%, the** frequency of complaints was reduced by one level, for **19% by** two levels, for **19% by** three levels and for **48% by** four levels. Consequently, 48% of all level 5 patients are free of complaints (no/no significant complaints).

ELBOW COMPLAINTS
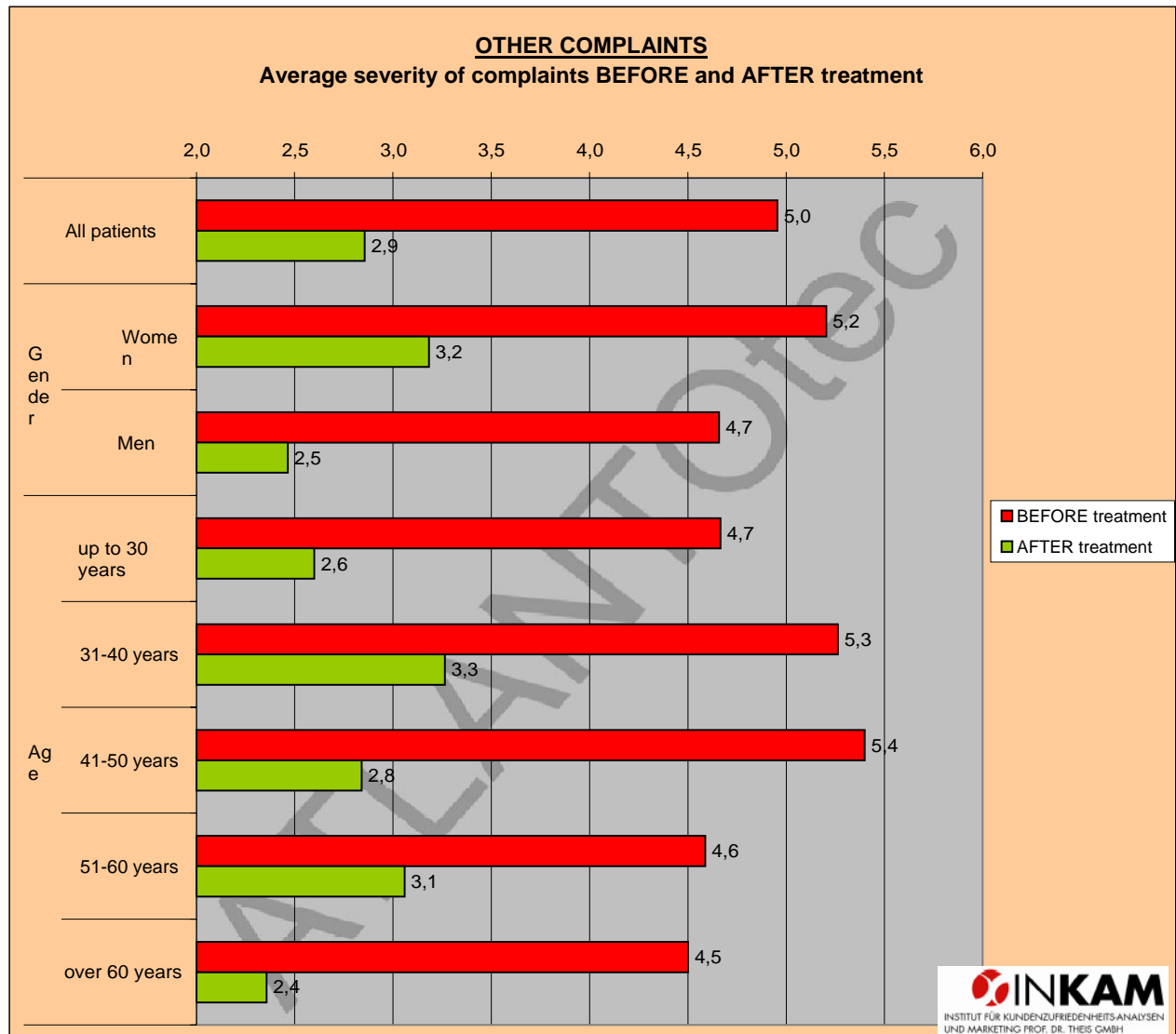**Treatment success as a function of complaint frequency and severity**
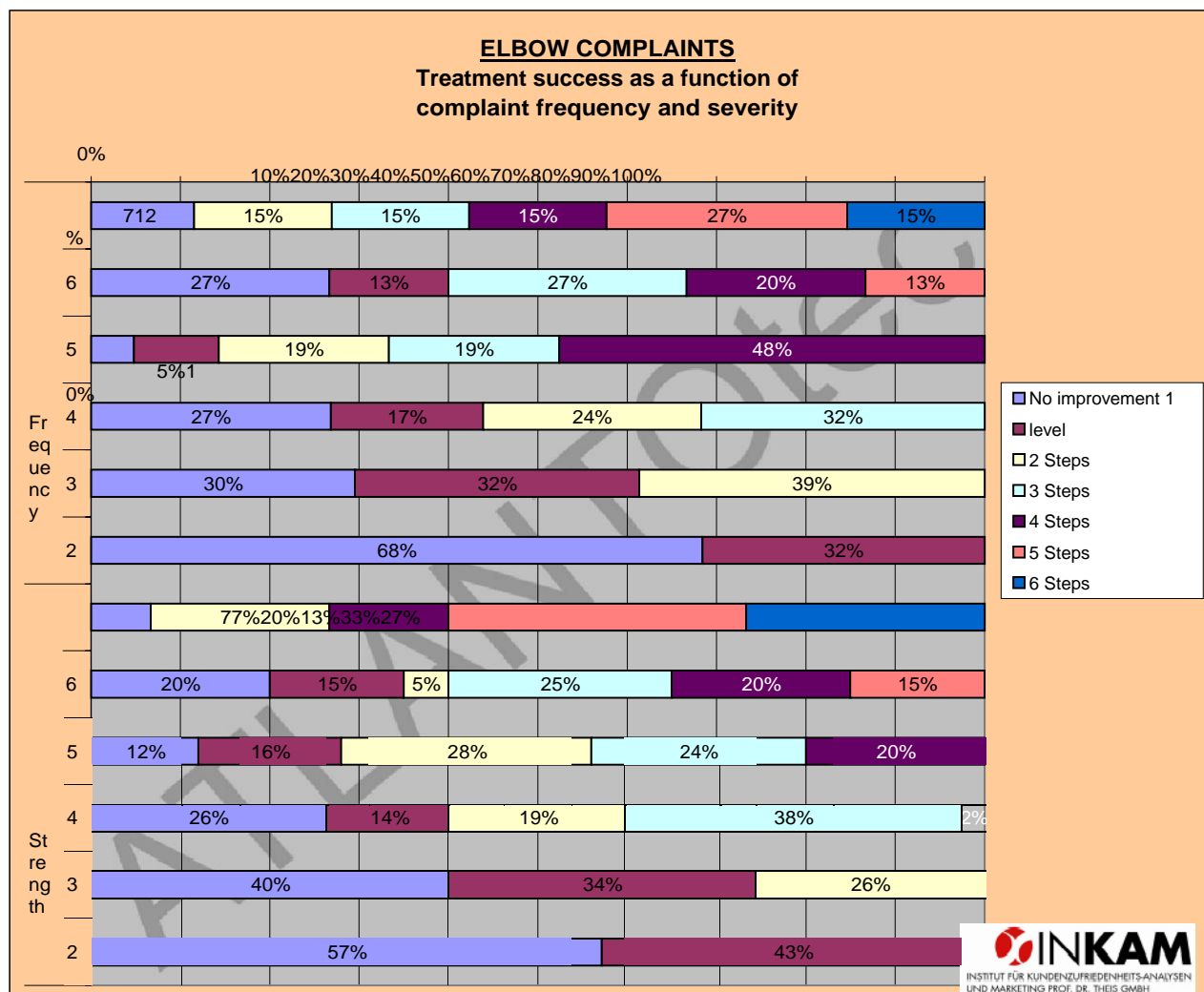
5.17.4 Average complaint frequency BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of **elbow complaints** has changed on average for all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

ELBOW COMPLAINTS
Average complaint frequency BEFORE and AFTER treatment

Category		BEFORE treatment	AFTER treatment
All patients		4,0	2,4
Gender	Women	4,3	2,4
	Men	3,6	2,4
Age	up to 30 years	4,0	2,2
	31-40 years	4,0	2,3
	41-50 years	4,1	2,6
	51-60 years	4,1	2,6
	over 60 years	3,8	1,9

5.17.5 Average severity of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the severity of **elbow complaints** has changed on average across all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.
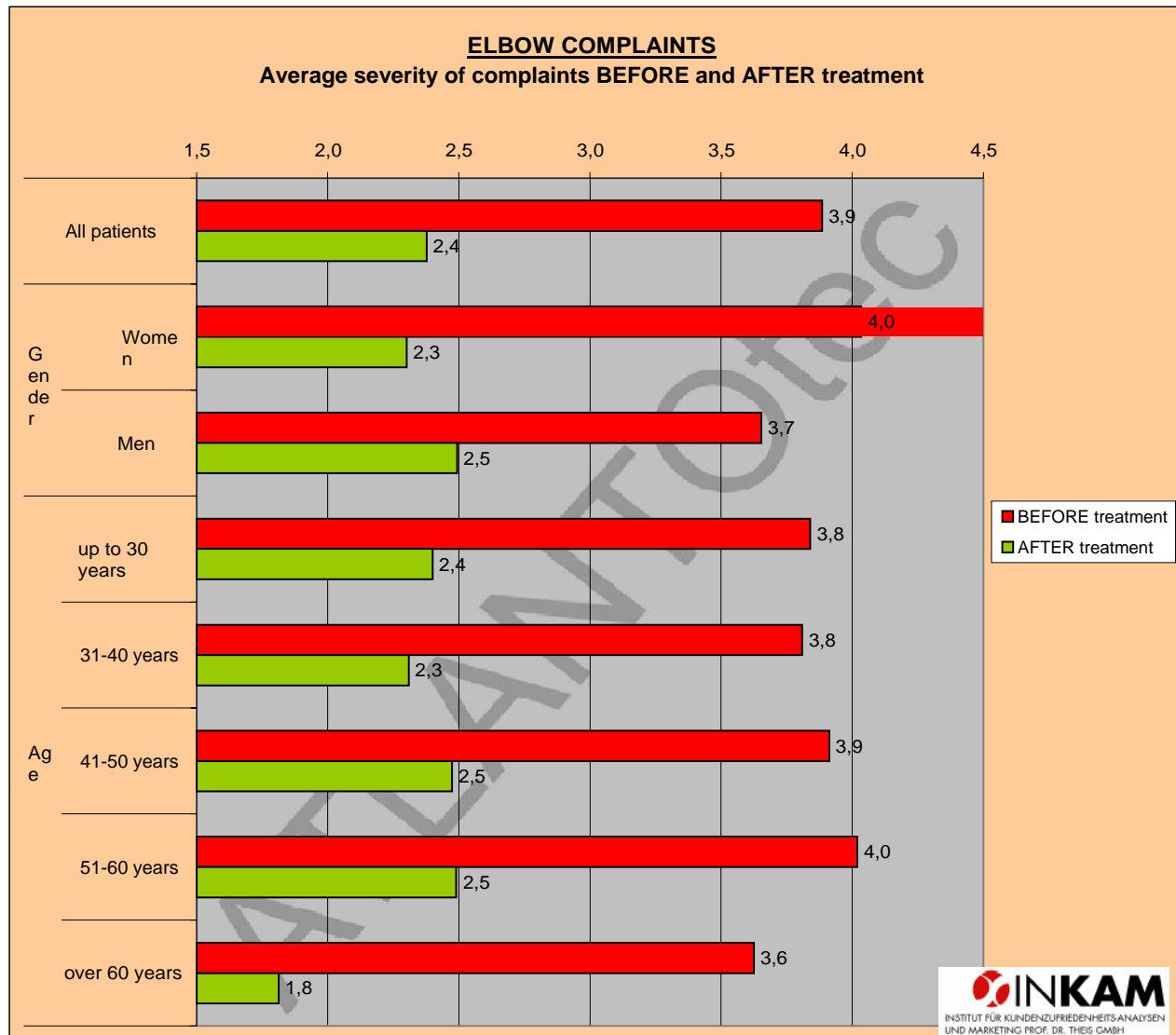
5.18 Blood pressure complaints

5.18.1 Complaint status at the beginning of the treatment

The following graph shows the proportion of patients - differentiated according to the various patient groups - who suffered from low/high blood pressure before treatment.

BLOOD PRESSURE
Proportion of patients who had complaints at the start of treatment

Group		Complaints	None / no complaints worth mentioning
	All patients	30%	70%
Gender	Women	32%	68%
	Men	28%	72%
Age	up to 30 years	37%	63%
	31-40 years	26%	74%
	41-50 years	29%	71%
	51-60 years	29%	71%
	over 60 years	33%	67%

5.18.2 Effects of treatment on frequency and severity of complaints

The following figure shows the course of the complaints in terms of severity and frequency in those patients who complained of low/high blood pressure at the beginning (scale levels 2-7 for frequency and/or severity) and underwent *ATLANTOtec*® treatment.

BLOOD PRESSURE
Course of complaint frequency and severity in different patient groups

	Complaint-free	improvement	No change	Deterioration
Frequency				
All patients	25%	29%	42%	4%
Women	30%	30%	38%	3%
Men	19%	27%	49%	5%
up to 30	24%	26%	47%	3%
31-40 years	21%	24%	52%	3%
41-50 years	24%	30%	43%	3%
51-60 years	38%	24%	29%	9%
over 60 years	16%	47%	37%	0
Strength				
All patients	25%	23%	46%	5%
Women	30%	26%	41%	4%
Men	19%	19%	56%	7%
up to 30 years	24%	21%	50%	5%
31-40 years	21%	17%	59%	3%
41-50 years	24%	35%	38%	3%
51-60 years	38%	12%	38%	12%
over 60 years	16%	32%	53%	0%

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.18.3 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field of blood pressure.

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **27% of** all respondents. For **23%, the** frequency of complaints was reduced by one level, for **9% by** two levels, for **18%** by three levels and for **23% by** four levels. Consequently, 23% of all level 5 patients are free of complaints (no/no significant complaints).

BLOOD PRESSURE
Treatment success as a function of complaint frequency and severity
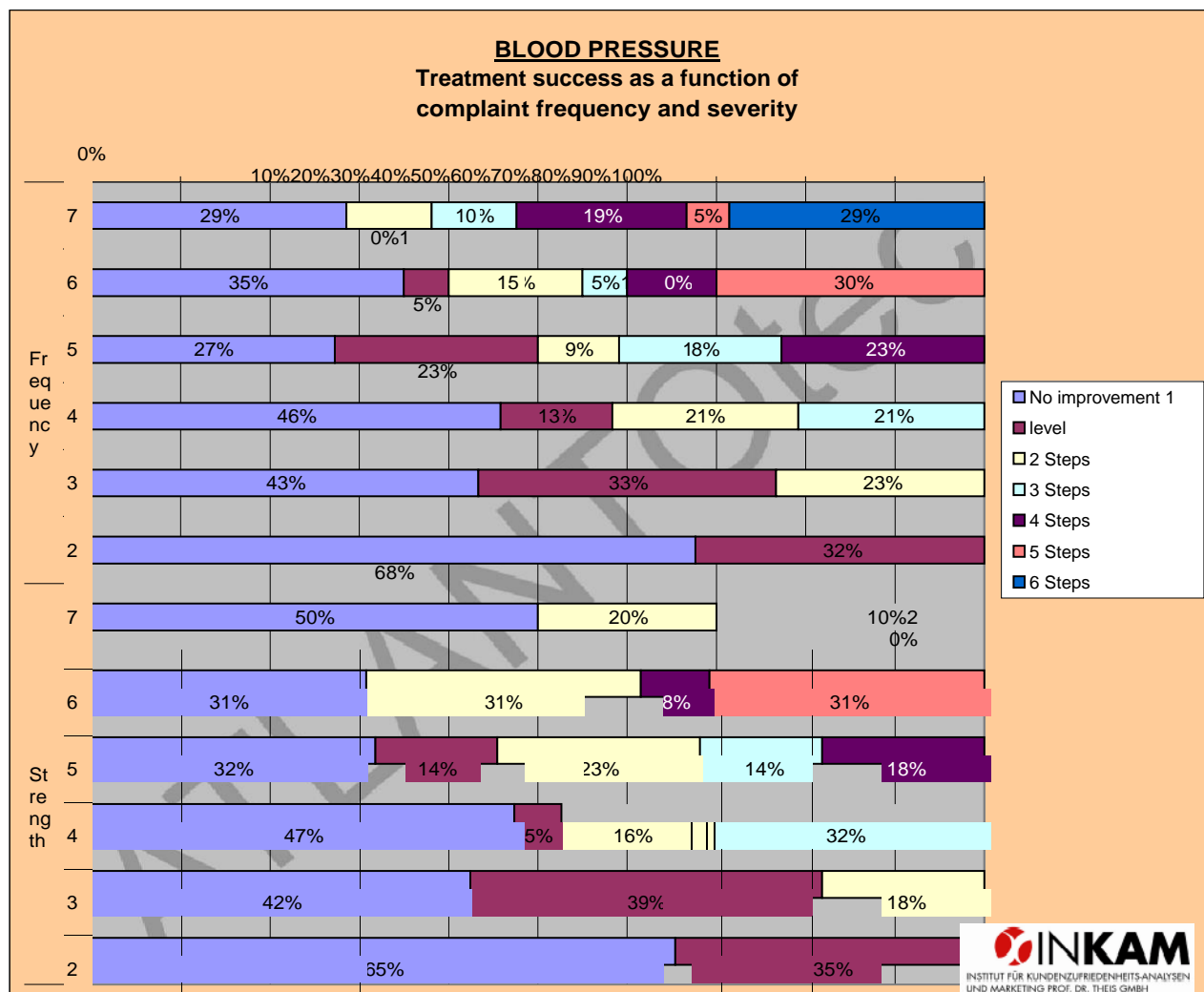
5.18.4 Average complaint frequency BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of _blood pressure complaints_ has changed on average for all patients (with complaints before treatment) as a result of the *ATLANTOtec*® treatment.

BLOOD PRESSURE
Average complaint frequency BEFORE and AFTER treatment

Group		BEFORE treatment	AFTER treatment
All patients		4,2	2,8
Gender	Women	4,3	2,8
	Men	3,9	2,8
Age	up to 30 years	3,8	2,8
	31-40 years	4,0	2,9
	41-50 years	4,1	2,7
	51-60 years	4,0	2,3
	over 60 years		3,5

Legend: ■ BEFORE treatment ■ AFTER treatment
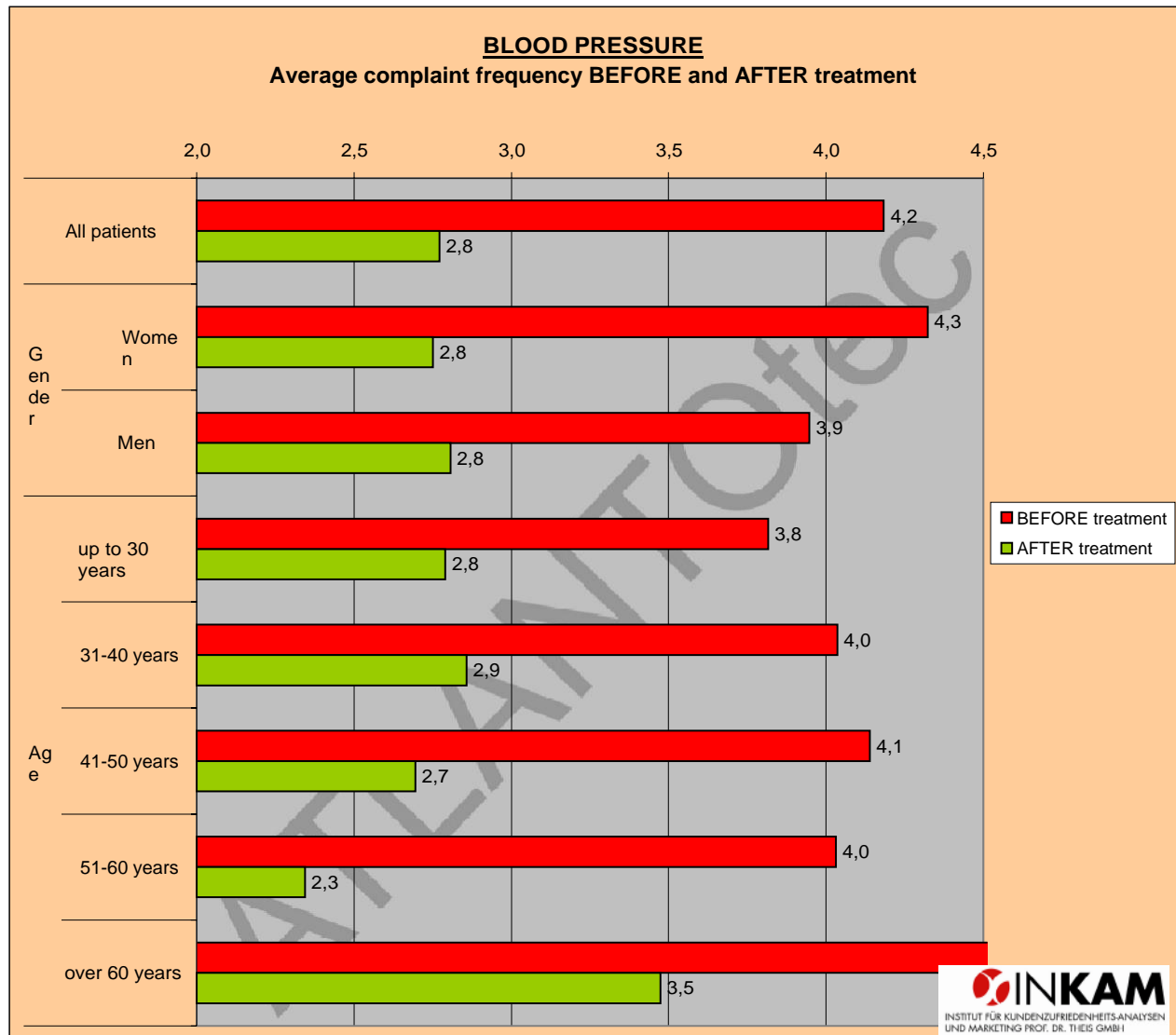
5.18.5 Average severity of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the severity of **blood pressure complaints** has changed on average for all patients (with complaints before treatment) as a result of the *ATLANTOtec®* treatment.

BLOOD PRESSURE
Average severity of complaints BEFORE and AFTER treatment

Group		BEFORE treatment	AFTER treatment
All patients		3,6	2,6
Gender	Women	3,7	2,5
	Men	3,4	2,8
Age	up to 30 years	3,2	2,6
	31-40 years	3,9	2,9
	41-50 years	3,6	2,5
	51-60 years	3,4	2,3
	over 60 years	4,2	2,9

5.19   Other complaints

5.19.1 Complaints mentioned by respondents

The above-mentioned complaint fields were given to the respondents to assess. In addition, they had the possibility to enter further complaints in the field "Other".

The following list shows which complaints were mentioned here.

Head	Jaw complaints (6x)
	Visual disturbances, burning eyes (3x)
	Dental complaints (2x)
	Nosebleed
	Hay fever
	Frontal and nasal cavity
Hull	Breathing difficulties
	Back pain
	Haemorrhoids
	Sciatica
	Vomiting Colic
	Hips unequal
	Tensions
	Radiation from the cross
	Holding water after cancer surgery
	MS
Extremities	Painful feet/ankles (5x)
	Painful / numb hands / wrists (4x)
	Painful legs: Calf, heel thigh
Psyche, nerves, immune system etc.	Heat attacks (3x)
	Arm tingling (2x)
	Epilepsy
	Nervousness
	Fibromyalgia
	Concentration difficulties
	weak nerves
	Immunodeficiency
	Drowsiness
	Balance disorders (borriliosis)
	Impure skin
	Asthma
Other	Rosaccea
	Cedimento Involtario Gamba
	Nasuea
	Contrattura Musc. Cerv.
	Tachicadia
	sudorazione ascellare
	Stati Ansiosi-Nausea

5.19.2 Complaint status at the beginning of the treatment

The following chart shows what proportion of patients - differentiated according to the various patient groups - suffered from "other complaints" before treatment.
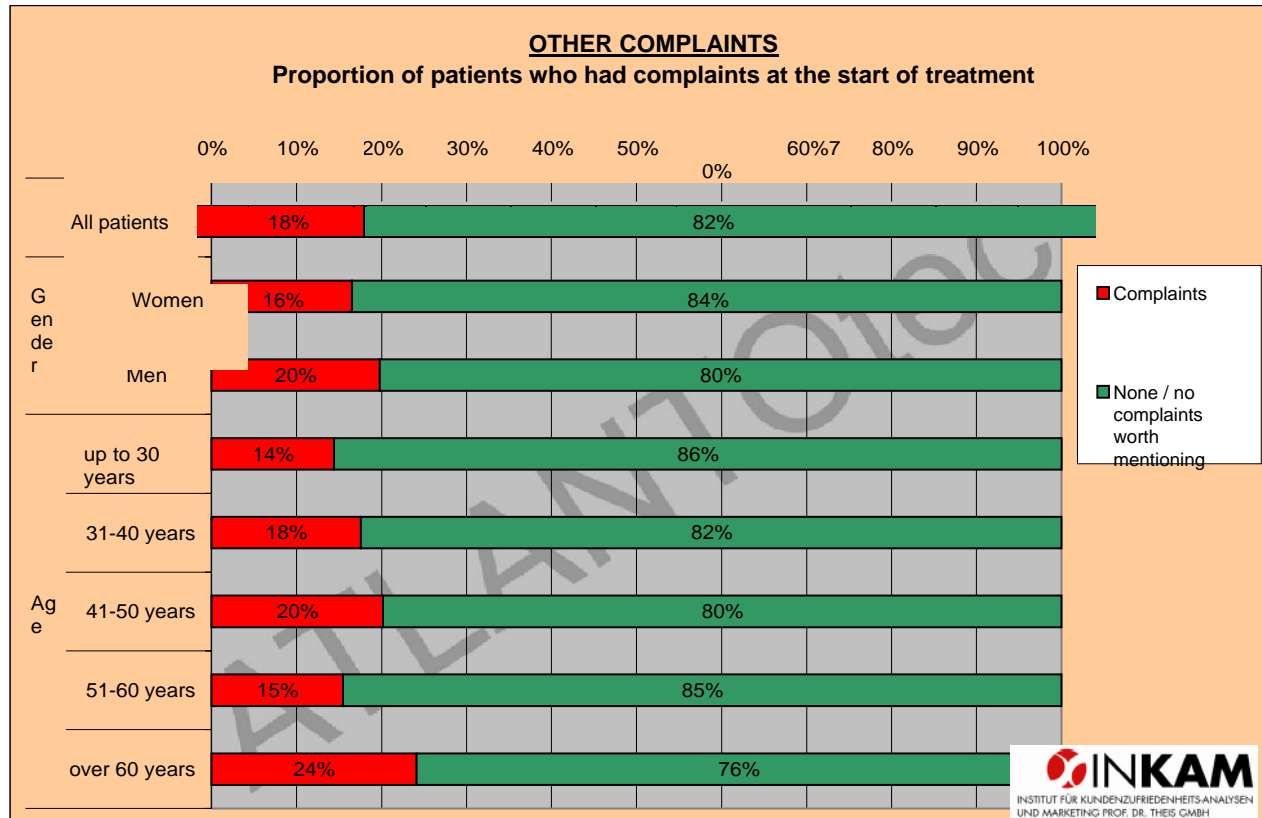
5.19.3 Effects of treatment on frequency and severity of symptoms

The following figure shows the course of the complaints in terms of severity and frequency for those patients who complained about "their complaints" at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the *AT-LANTOtec*® treatment.

OTHER COMPLAINTS
Course of complaint frequency and severity in different patient groups

	Complaint-free	improvement	No change	Deterioration
Frequency				
All patients	22%	57%	20%	2%
Women	22%	51%	27%	0%
Men up	21%	63%	5%	12%
to 30 years	19%	75%	0%	6%
31-40 years	21%	47%	32%	0%
41-50 years	23%	62%	4%	12%
51-60 years	18%	41%	41%	0
over 60 years	29%	57%	14%	0
Strength				
All patients	22%	51%	25%	2%
Women	22%	49%	29%	0%
Men up	21%	53%	21%	5%
to 30 years	19%	69%	6%	6%
31-40 years	21%	47%	32%	0%
41-50 years	23%	58%	4%	15%
51-60 years	18%	41%	41%	0%
over 60 years	29%	36%	36%	0%

* The treatment can lead to the following results: In the best case, patients are free of symptoms after treatment (no or no significant complaints). However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints). Furthermore, the result can be an unchanged frequency/severity (no improvement) or also a worsening (due to increasing frequency/severity).

5.19.4 Effects of treatment with different complaint intensity

The preceding illustration makes it clear in general terms to what extent the patients were able to achieve a basic treatment success. It does not show how great the treatment success was with the *ATLANTOtec*® treatment.

The question is therefore, what is the effect of the atlas correction with different complaint intensities (complaint frequency and severity) in the complaint field "other complaints".

The following figure shows the results. It shows, for example, the change in the frequency of complaints among those patients who indicated **level 5** on the frequency scale before treatment: There was no improvement in **10% of** all respondents. For **15%, the** frequency of complaints was reduced by one level, for **25% by** two levels, for **30%** by three levels and for **20% by** four levels. Thus, 20% of all level 5 patients are free of complaints (no/no significant complaints).

OTHER COMPLAINTS
Treatment success as a function of complaint frequency and severity
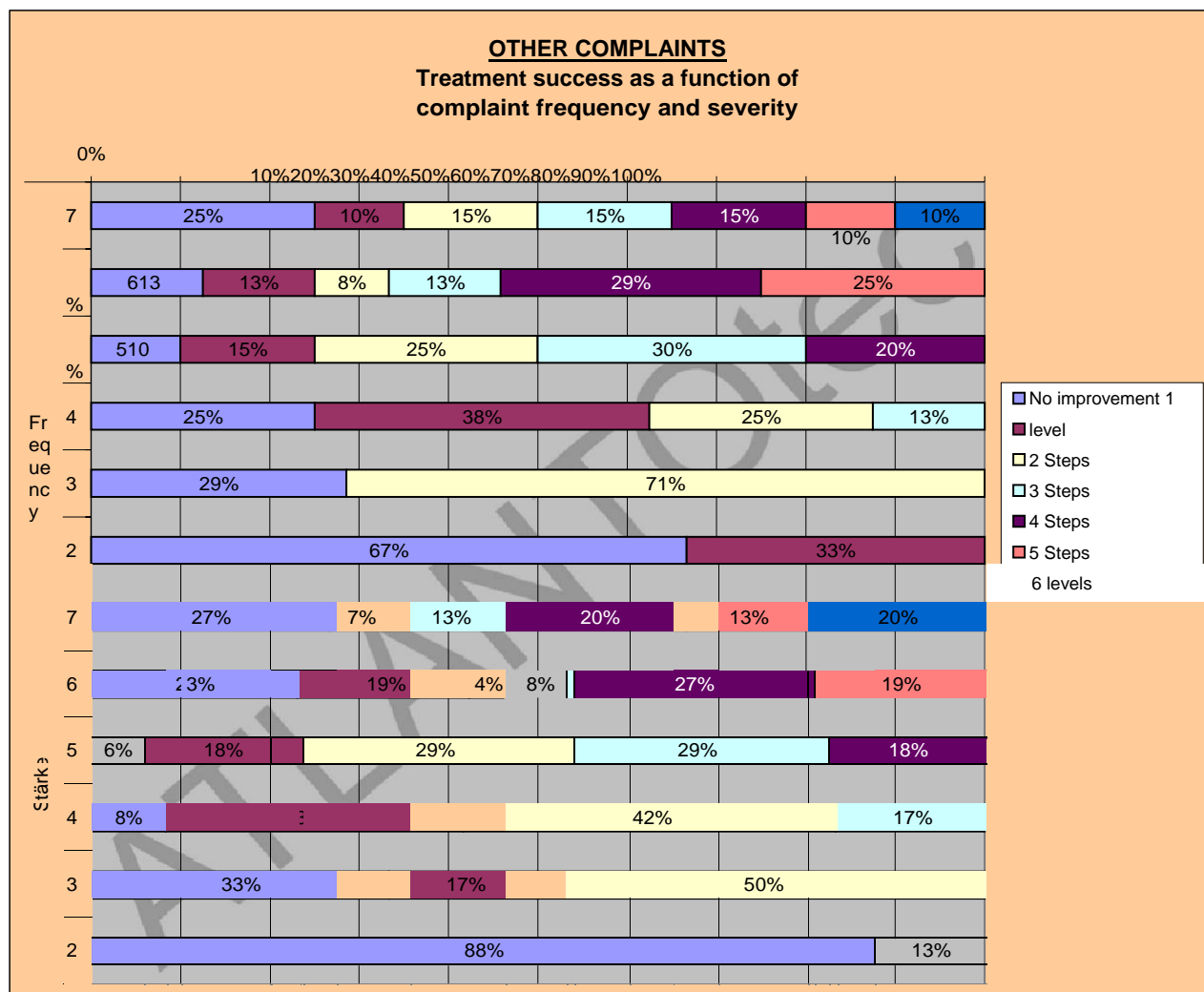
5.19.5 Average complaint frequency BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the frequency of complaints with **"other complaints"** has changed on average over all patients (with complaints before treatment) as a result of the *ATLANTOtec*® treatment.

OTHER COMPLAINTS
Average complaint frequency BEFORE and AFTER treatment

Group		BEFORE treatment	AFTER treatment
All patients		5,3	3,0
Gender	Women	5,3	3,3
	Men	5,3	2,7
Age	up to 30 years	4,9	2,6
	31-40 years	5,3	3,0
	41-50 years	5,4	3,1
	51-60 years	5,1	3,2
	over 60 years	5,6	3,1

5.19.6 Average severity of complaints BEFORE and AFTER treatment

The following graph shows - differentiated according to the various patient groups - how the severity of the **"other complaints"** has changed on average for all patients (with complaints before treatment) as a result of the *ATLANTOtec*® treatment.

OTHER COMPLAINTS
Average severity of complaints BEFORE and AFTER treatment

Patient group	BEFORE treatment	AFTER treatment
All patients	5,0	2,9
Gender – Women	5,2	3,2
Gender – Men	4,7	2,5
Age – up to 30 years	4,7	2,6
Age – 31-40 years	5,3	3,3
Age – 41-50 years	5,4	2,8
Age – 51-60 years	4,6	3,1
Age – over 60 years	4,5	2,4

6 Praise and blame from respondents

At the end of the questionnaire, respondents had the opportunity to give "My comments ONE month after treatment".

Within the framework of the evaluation, the statements made were - as far as possible - sorted according to the individual complaint fields.

General condition improved

- I thank you for the good advice.
- Not much has changed yet. The general condition is better.
- I feel well. Exception: neck slightly stiff on right side. Nerves pulling in the right arm; in the elbow for a week.
- More freedom of movement. General condition much better. Treatment highly recommended.
- Generally better feeling. Currently shoulder complaints, probably due to new loads or changed muscle strain.
- I have grown 2 cm. Good overall feeling.
- I felt good 1-2 weeks after the treatment. I do physiotherapy in between. I am confident. Must change diet. The treatment was relaxing.
- The general well-being and outlook on life have become more positive.
- Tense jaw better. General condition much better.
- Generally more energy and concentration.
- Extreme improvement in quality of life. Much less, i.e. hardly any pain.
- I am very satisfied with the treatment. I am almost pain-free again after a cervical spine distortion (whiplash). More quality of life. Many thanks.
- One month later, I feel like a new person. Not without pain, but the quality of life has improved massively.
- Complaints are much better. I can recommend this method.
- Sensational improvement after the treatment.
- Improvement has occurred.
- I feel as fit as a twenty-year-old.
- Only to be recommended. Significant improvement.
- I feel looser and more upright.
- I was positively very surprised that Atlantotec has such a fast and strong effect: I can only recommend it to everyone.
- Very relieved after the treatment.
- Markedly improved.
- I felt very comfortable after the treatment. I can only recommend the treatment to others.
- I feel much more relaxed. Treatment has taken me a few steps further.
- I feel like I've been reborn.
- Very good progress on many points. Mobility is great.
- Improvement was immediate.
- The first week was very good.
- I am satisfied with the treatment. I can recommend it to others.
- Everything has improved a lot. Treatment is very fast.
- I am very satisfied with the treatment. Thank you to the whole team.
- I was in a very bad condition before the treatment after a traffic accident. Condition improved after the first treatment. I have more sleep problems because the accident insurance is causing problems. Treatment payments are to be stopped at the expense of the health insurance.
- A lot has improved. I hope it stays that way. Thank you very much.
- It did me a lot of good. I can already feel a difference. To the staff: Super friendly, keep it up.
- Could experience an almost unimaginable relief from the pain.
- The healing process is underway.

- Compliments.
- The treatment was fantastic for me.
- All is well.

No improvement
- Unfortunately, no improvement.
- Currently: (10.6.2009) no clear improvement (back) noted.
- Unfortunately, there has been no improvement yet. What is not can still become, I hope.
- Little improvement. But perhaps still too early.
- No change
- No significant change yet. As I have had the symptoms for years, I do not expect any such improvement.
- Positive effect 1 week after treatment. 1 month after treatment as before.
- Little change so far. Since the complaints have been there for a long time, I am still hoping for improvement.
- Without change.
- The first few days I had dizziness, with the feeling that something was happening. At the moment, everything is almost the same as before, but I am confident.
- Intensification of symptoms in the first two days. Ants crawling all over the body. Then a little better for about a week. Unfortunately, after another week, unchanged again.
- Treatment did me a lot of good. No improvement in the main complaints, but I am convinced that my body needs a little longer as I have had the complaints for years.
- Increased heart activity in the evening.
- Atlas had slipped again after a month and was corrected again.
- I am often tired in the evening. My legs are heavy and covered with small red spots from knee to foot.

Tensions
- I feel better every day. Pain from the tension has disappeared for the most part. I am very happy about the treatment. Saved me many years of GP visits, which would not have brought any improvement anyway.
- No negative experiences. Tension is almost gone. Migraine 2 times in the last 4 weeks. Serves very well for prevention.
- Pain has generally been reduced by 30%. Tension has decreased by 50%.
- The treatment did me a lot of good, especially after the treatment. I need additional massages to relieve the tension permanently.
- Tension improved. No more dizziness.
- Tension is still there, but has eased. Mobility has improved.
- The first few weeks were noticeably better. After that, tensions came back.
- Immediately after the treatment I felt very well, then 3 days of great tension and pain. Then it became calmer. Unfortunately, more muscle tension again. But the atlas is in the right place. I hope to get relief through massages and exercises.

Headache
- Headache has subsided. Surprisingly, morning pelvic joint pain has improved and is sometimes completely gone.
- In the first week I had a lot of energy, then I became a little weaker. I was able to withstand nervous strain better. It did me a lot of good. It's a different feeling of being able to carry my head properly again.
- Headache completely gone after one month.
- Practically no more headaches.
- Feel fitter. Head more mobile. Much less headache than before treatment.
- Fewer headaches and I feel better. If it got any better, I would be happy. Many thanks
- Significant improvement much less headache; much more efficient; mood improvement, more stress possible.

- Headaches are almost gone. General condition has improved positively.
- I'm looking forward to the next few weeks. Neck more relaxed, headaches less.
- Fewer headaches, almost cured. Runny nose increased. Positive: I have stopped smoking.
- Improvement quickly after about 2 weeks. Headaches: less frequent and less severe. Much better general well-being. Just have to learn to deal with my new body feeling.
- Almost no headaches any more. Mobility of head and neck very good. No more eye tremors. CONCLUSION: Very satisfied. Should have had the treatment earlier.
- I am very satisfied with the treatment. Headaches are no longer present.
- The headaches have improved a little. The frequency and intensity are much less.
- The headaches have improved, although they have not disappeared completely. Neck tensions have improved.
- Frequency of neck tension-related headaches have decreased. I am on the road to recovery.

Neck pain Head rotation much better.

- Great physical relief. Noticeable in the neck immediately after treatment.
- After the treatment, the head can be turned further.
- I feel much more relaxed in the neck and shoulder area.
- I feel much looser; head mobility is increased many times over. Sleep disturbances have disappeared. Thank you very much.
- Neck complaints have decreased enormously.
- Better movement of the head after treatment.
- Head is more flexible. Neck complaints are gone, shoulder complaints unchanged. Treatment was worthwhile. I feel better in general.
- Significantly less neck discomfort, improved shoulder/torso coordination when walking.
- Neck complaints have decreased significantly. Mobility has improved.
- Pain in the neck has almost disappeared. Relief of shoulder tension, but not yet completely gone.
- It takes a bit of courage to offer your neck to a stranger, but it's worth it. The first week was an overwhelming experience. It felt like moving/coming home. Thank you for this ingenious invention and the service.
- Good treatment for my main problem: neck tension, but somewhat useless in my case.
- I feel more rested and relaxed. Neck and lower back pain alternating between pain-free and acute. Hope these are signs of positive changes.
- Headaches have improved noticeably. Change in neck pain. Pain is no longer in the atlas, but in the lower neck vertebrae. Very positive: I can sit in a sofa again without discomfort.
- At the moment tension in the neck is worse, but less low back pain.

Back problems I am satisfied. I no longer have back pain. Better breathing, can sleep on my back again. Sleep very well. Better well-being.

- It was worth it. The neck and back have straightened.
- After the treatment: severe muscle soreness in the back area. I was able to sleep on my stomach again quickly afterwards.
- The ISG on the right is still blocked, but overall it causes less pain and tension in the whole back.
- I feel better, back pain is not so severe anymore. Thinking of repeating the treatment again in a few weeks. Today's massage did me a lot of good. It still needs some time for me.
- Spine now straight. I feel taller when I walk!
- Spine absorbs blows/jumps on the back better.
- Better body feeling. I rarely notice a slipped disc anymore. Massage and correction recommended.
- Straighter posture, no hollow back.

- My back is straight again. The right shoulder was 5 cm lower, now almost the same.
- Others have noticed a straighter back posture. I have a better sense of well-being.

Shoulder complaints
- Shoulder pain almost gone.
- Very positive. Height difference between left and right shoulder virtually eliminated. Knee problems during jogging greatly reduced.

Tinnitus
- Almost everything has improved. Less tiredness and sleeping problems. Tinnitus not yet completely gone. Intensity varies depending on the position of the head.
- My ringing in the ears has disappeared completely.

Migraine
- No more migraines so far.
- Migraine attacks unchanged; back freer.

Sleep complaints
- I feel stronger and pain-free. Sleep more relaxed and deeper at night. I can and will recommend this atlas technique.
- I no longer have trouble falling asleep and can sleep through the night without any problems. The migraines have decreased considerably.
- I am often tired, but sleep better. Otherwise unchanged.

Other complaints
- Hip complaints improved. Neck complaints have improved.
- After the treatment on the left side of the body, no more complaints.

Combined complaints
- Tension, fatigue, headaches still there, but much better. Dizziness greatly reduced since whiplash; better concentration.
- Neck pain almost completely gone. No more headaches. New quality of life.
- General well-being much better. Less tension, head can be turned in a larger radius, less hip pain.
- My condition is very good. My neck and shoulder complaints have been reduced to a minimum. My breathing is much better.
- Clear improvement regarding: headache, dizziness, tension. Only tinnitus is unchanged.
- After 3 weeks: very good mobility of the head. Practically no back pain after gardening. Noticeably less hip pain. Tinnitus stronger, no improvement so far.
- Neck and shoulder area much better. Less tension. Hip much better. One headache in the last month.
- Headache only once more in connection with a cold. I have a good straight back feeling. No more migraines.
- No more jaw cracking, jogging without knee pain. Headaches practically no more.
- Almost no more knee pain. Elbows and back pain have also disappeared. Neck and shoulder still not quite optimal.
- Increase in the ability to concentrate. Decrease in constant tiredness. Menstrual cramps have decreased significantly.
- Improvement in posture. Better stance, much straighter. Migraines and headaches still there, but less intense. I can relieve tension myself, which improves my quality of life. Thank you.
- Dizziness has improved. Also knee and lower back pain.
- At the beginning: headaches, left knee cracked when walking/running. Hip and pelvic complaints could be remedied.
- Generally better; migraine weakly better, although 1 month is relatively short for a judgement. Dizziness hardly any more. I am curious how it will go on. Comments in the forum will follow.
- Body better aligned. Pain in the skull, jaw, neck is different; sometimes stronger,

sometimes weaker. There is a change/improvement going on which makes me confident.

Annex (questionnaire)

Imprint

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