a matter of time

Dr. Ron Voorbij MD PhD, Rob G. Berkhof,
Eric W. Gerritsen, Han Kruyswijk

Symptomatrix®

**About the significance of
a simple, effective public tool for
Early Recognition of the symptoms of
Giant Cell Arteritis and Polymyalgia Rheumatica**

Anniversary edition, 12½ years Symptomatrix
2016 Marijke Foundation

"Think Different."

(Steve Jobs, American inventor and entrepreneur, 1955 - 2011)

Symptomatrix®

a matter of time

or
how a simple, effective tool saves significant
and not infrequently essential amounts of time
in recognition, diagnosis and treatment of
Giant Cell Arteritis and Polymyalgia Rheumatica.

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Marijke Foundation

'a matter of time' is available in print (English only) and as an e-book (English and Dutch). In the course of 2017, the book will also be published in German, French, Spanish and Italian (e-books only). Because of the nature of some symptoms of Giant Cell Arteritis in particular, the Marijke Foundation is considering to publish this book in due course also as an audio book.

The e-book versions are designed for tablets and smartphones with the Adobe PDF e-book reader or comparable PDF reader installed, but are also readable on desktop computers and laptops.

All versions of 'a matter of time' are available free of charge and can be ordered by e-mail from the Marijke Foundation. The printed version is a limited edition and selectively available as long as stock lasts.

The digital and audio versions of 'a matter of time' may be distributed in their original form, lay-out and length without limitation.

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Lectori salutem

"Earlier Recognised ▸ Earlier Diagnosed ▸ Earlier Treated = Better Prognosis." The slogan of the Marijke Foundation.
It is applicable to almost anything, a car, human relations, a bike, politics, plants, shoes, health, the human body and so on.
This book is mainly about this undeniable fact.

'a matter of time' is meant and accessible for everyone.
The book is not intended to be a scientific publication although, because of the nature of some parts of the content and the work of the Marijke Foundation, scientific and other sources are listed in Chapter 22. References, page 62 onwards.
This publication mainly serves to contribute to public awareness and to act as an eye-opener for everyone. But it is also of importance to the medical scientific society, through its comprehensive involvement in two rare diseases that are so very difficult to recognise, to diagnose and to treat timely: Giant Cell Arteritis (GCA) and Polymyalgia Rheumatica (PMR).

For this purpose, the book compiles as well a number of articles the Marijke Foundation has published since its foundation in July 2003.

By the way, Jean Sibelius (Finnish composer, Hämeenlinna the 8th of December 1865 - Järvenpää the 20th of September 1957) reacted on negative reviews concerning one of his compositions with: "to date a statue has never been erected for a reviewer."

The authors,
Amstelveen - The Netherlands, October 2016.

• The Marijke Foundation is a private initiative and does not receive any subsidies. All projects are financed from own resources.
Also this book is created and produced without subsidies.

A request

This book, which does not bear its title 'a matter of time' without reason, can be of great importance for women from about 40 to 45 years of age, sometimes even younger. This also holds increasingly for men.

The information helps to recognise strange complaints as symptoms of two rare diseases which are very difficult to recognise and to diagnose.
Moreover the conditions seem to become less and less rare.

Hence the request by the Marijke Foundation to forward this free e-book to as many e-mail addresses as possible since there may be potential patients among the addressed.

They will be grateful for the information as it may help them to prevent the often serious risks of recognising symptoms too late and, consequently, late diagnosis and delayed treatment.

Table of contents

1. Simplicity and feet on the ground

Tools.
Common tools.
For daily use.

What would the world look like without them?

Like the stethoscope, the blood pressure metre and many other common 'tools' for the medical professional?

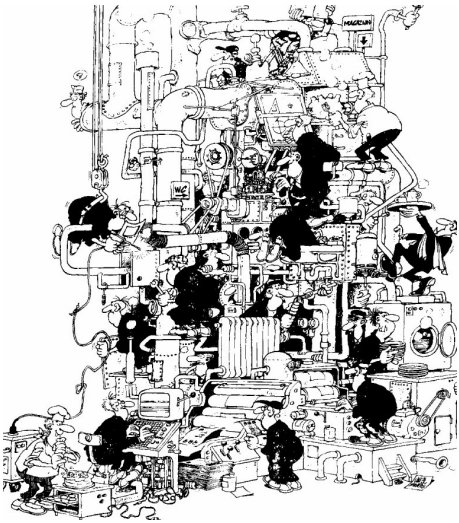
And how about the human ear?
A squeak, rumble, other suspicious noises? A mechanic carefully listens to those 'symptoms' and usually knows where to begin with car repairs. Uhm, that is to say, if you consult your mechanic in a timely manner.....

Tools: simple, practical, effective, efficient, handy and time-saving. They do their job without the need for scientific references or validation [1].

[1] In sciences: assessment of validity or accuracy.

Complex repairs on the tramlines in front of the world-famous "Concertgebouw", Amsterdam, with lots of common, simple and effective tools.

Almost anything has begun - and begins - simple. Even the most complex issues did not start complex and with complex reasoning...



... but with simple, practical ideas and goals.

Quite a lot of famous inventions were based on simple ideas and initially successfully developed by individuals or a small team, in a practical way: with both feet on the ground.

A telling example is aviation.
Man was literally with both feet on the ground, observing birds and wondering how to fly.

Another example: 'how to compute electronically', as opposed to mechanical or electro-mechanical computing.
This development did not start with complex calculations, but with simple sums of addition, subtraction, multiplication and division.
In 1939, the German scientists Konrad Zuse and Helmut Schreyer developed an electronic device that was able to calculate. The device was indeed capable of 'computing'. In essence, this was the world's first-ever computer [2] [3].

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[2] Bülow, Ralf, "Three Inventors-Scenes from Early German Computing History," Ann. Hist. Comp., Vol. 12, No. 2, 1990, pp. 109-126.
Ceruzzi, Paul E., "The Early Computers of Konrad Zuse, 1935 to 1945," Ann. Hist. Comp., Vol. 3, No. 3, 1981, pp. 241-262.

[3] According to tradition: though not yet completed, the idea and the device were presented to Hitler. He asked both scientists whether it could be used for warfare. "No," they stated, and Hitler wiped the device literally from the table as useless.

Suppose the work of those groundbreaking scientists had not gone astray because of World War II.
Suppose technological progress, based on the work of Konrad Zuse and Helmut Schreyer, could have been further developed without that horrible interruption and the many subsequent years Europe needed to recover.

Could it have been so that, by today, a tiny device could be glued on a specific area of the human body of someone complaining about her or his health? And in less than a minute, a screen could show a diagnosis whilst at the same time advice could be printed on how to treat the patient?
Perhaps human beings could already have a device implanted somewhere in the body that can be used to diagnose by simply hovering a scanner over the sector where the device is placed.
Or perhaps a small electronic implant could emit signals that are received by the GP's practice or medical centre where our health is monitored 24/7, as is already the case in advanced cars, with the manufacturer as "GP".

Instant diagnosis. Saving time....

Simple thoughts, simple ideas....

Music is also a matter of simplicity, common sense, feelings and practical skills, according to experts.
So, how about 'The Beatles'?
For a short while in the long history of music, they became important and, for about eight years, they had great influence on the development of rock 'n roll, pop music and not to forget the use of psychedelic drugs.

'The Beatles' started simple, like any other group in those days, consisting of amateur singers/guitarists, a squeaking microphone, some amplification and an (overly) loud drummer. Performing in appealing obscure clubs, various schools, youth and community

centres and so on. Facing the identical frustrating struggle along various music publishers and recording studios that most of the early rock bands from around the world had to experience. Time and again presenting their home cooked tape with a 'promising' song and under various names, such as 'The Quarrymen', 'Johnny and the Moondogs', 'The Beatals', 'The Silver Beetles', 'The Silver Beats' and 'The Silver Beatles'.
'The Beatles' breakthrough came in 1962 with a simple love song "Love me do" by John Lennon and Paul McCartney. A song which, in its original form, hardly resembled what it eventually became under the influence of the talented musician and producer George Martin.
Finally, with this very simple, straightforward, 4/4 time, four-chords song, 'The Beatles' conquered the world.....

Simplicity. Effectiveness....

The interactive transfer of information around the world is essentially a simple idea as well.
In 1974 at Elsevier Science Publishers (Associated Scientific Publishers: Elsevier Science, North Holland Publishing Company and Excerpta Medica), the idea of electronic publishing was based on the way the nervous system in the human body is structured, organised and works.

This was realised within the limitations of the technology available at the time. But indeed, an 'information around the world nervous system' was born. Later on, this simple idea, often attributed to Tim Berners - Lee and sometimes apocryphal considered to be an invention of the U.S. Army, went public and grew into the World Wide Web.

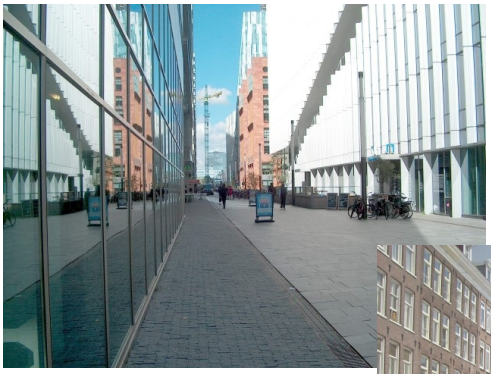
Simple, practical, efficient, no nonsense, effective problem solving, or taking up challenges. With both feet on the ground.

Most ideas and inventions are essentially based on this 'format', for which it is sometimes necessary to have the courage to escape from the shackles of the past and present, and to think and act differently: 'outside the box', 'new school', progressive, where appropriate intentionally ignoring restrictive conventions.

And let's not forget that lots of inventions and bright solutions were, are and will be initiated by ordinary people.

2. Today's and tomorrow's patient

Today's people. Every day's people. Daily life. Around the globe.



◂ *World Trade Centre, Amsterdam*

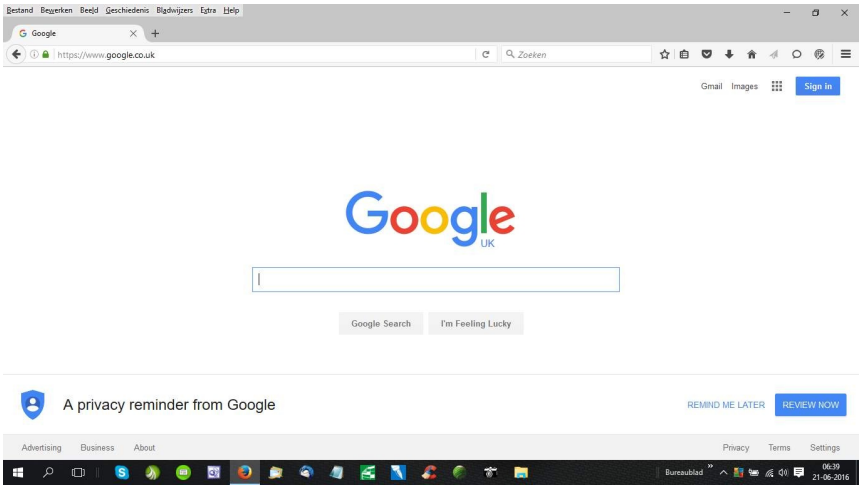
World-famous Albert Cuyp street market, Amsterdam ▸

◂ *Spiegelgracht, Amsterdam*

But daily life is continuously and rapidly changing.

Information technology has changed our world dramatically and will continue to do so.

Technology has made things possible that were not possible before and introduced things we had never thought or dreamt of.
As a result, technology has changed us, human beings. In particular, our behaviour and our possibilities. For instance, it has changed our ability to gather and use information, and to gain and expand our knowledge.
A never-ending process with obvious consequences.



"Is health the exclusive domain of medical science and medical professionals?"
Quite an interesting theme.
But far from true and, in fact, it has never been the case.
The only thing has been that people lacked the knowledge, the means and the sources to gather information and knowledge in a comprehensible, accessible form.

But that has changed.
Consequently, today's patient is no longer the traditional patient of the past. This has been caused by, among other influences, the advantages of technology and the ability of human beings to gradually adapt.
Although not yet for everyone in the world, information technology has become a part of our common daily 'tools' and resources.

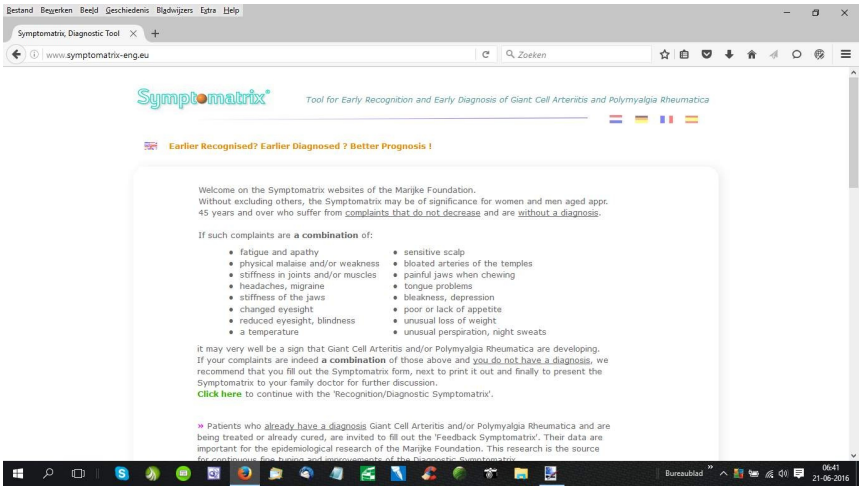
Also with regards to health.

A growing number of people search the internet for an explanation for their complaints.
This is rapidly influencing and changing the relationship between patients and the family doctor, their assistants and medical specialists. It is an absolute and irreversible innovation of that relationship.

Besides, innovation and the perfecting of care, medical skills, methods, instruments et cetera may be the domain of medical science. But innovation, in general, is definitely the domain of everyone, which also includes the periphery of medicine.

Provided that medical professionals are open to accepting the changes and aware of the positive effects, also on their own work, it will result in more efficient cooperation between patients and themselves.

A well-prepared patient, with the help of information from *reliable sources* on the internet (*check, double check and triple check !!!*) [4], will support the family doctor and medical specialist, normally resulting in accelerated recognition, diagnosis and treatment of diseases.



More knowledge. Well-prepared. Cooperation. Added values!

The changes also mean that today's and tomorrow's patients are more empowered, critical and demanding, and tend to be in control.
Also because of this, medical professionals and medical scientists have to accept that their role and position change as well and that they are forced to adapt in order to be part of what is happening worldwide, and thus avoiding to miss the connection.

[4] Also see Chapter 19. The other side of the e-coin, page 53 onwards.

Just 'a matter of time' and getting used to [5].

This applies to digital healthcare, e-health, e-consult, the GP at home, self-management, self-help triage [6] and other rapidly developing, mainly information technology driven phenomena as well.

For patients, medical professionals and other parties, saving considerable amounts of time and, last but not least, costs are, among others, the advantages of the whole process of changes and innovation.

[5] How difficult such processes are for medical professionals, prove the troubles with medical records (health records). A patient is not only indisputable owner of her/his body and health, but also of her/his medical records. In many countries this is regulated tight and detailed by law. But not rarely medical professionals are not prepared to hand the file to a patient with the comment that 'it is not intended for patients'.....

[6] In this regard: self-assessment of complaints with appropriate tools in order to then visit a doctor.

3. Dashboards and Traffic Lights

Suppose one or more orange warning lights flicker in the dashboard of your car.
Somewhat later it switches off.
Don't worry?
No idea so far what's wrong. But, it happens again. The lights go on and off repeatedly.
You feel more and more uncomfortable.
It becomes alarming.
What will you do?

Wait until the entire dashboard turns red or you finally end up with a broken car somewhere along a distant road?
Or see your mechanic for a diagnosis and repair....?

Orange is 'famous' as well in traffic lights.
Agreed, it makes some people nervous and unpredictable, but the majority are patient and aware.
It is a simple warning light: the red light is coming so you better stop before something nasty happens.

Traffic lights orange and red, in front of the world-famous "Rijksmuseum", Amsterdam.

Ignore the orange traffic light and you may cause an accident or at the very least you will be treated to a ticket.

Warnings. Simple and effective. Understandable and useful for everyone. Around the world.
And, at its core, this is all what this book is about.

4. Giant Cell Arteritis and Polymyalgia Rheumatica

The following information is concise. More comprehensive information is available from patient organisations, general practitioners, medical specialists, hospitals, clinics and others. For extensive scientific information, see Chapter 22. References, page 62 onwards.

Giant Cell Arteritis (GCA, also Horton Disease) is a rheumatic inflammation of medium and large size arteries, in particular, those of the temples: a vasculitis.
Patients can suffer from a variety of complaints: headaches, jaw pains, fatigue, fever, apathy and limitations in body motion.
A major risk is the irreversible reduction of eyesight and blindness.
Occasionally the disease may turn into a multiple condition (MGCA) which, on rare occasions, can have fatal outcomes.

As a rule, patients who suffer from GCA also suffer from Polymyalgia Rheumatica (PMR).
The disease is an ailment with inflammation of the muscles, in particular those in the neck, shoulders, upper arms, pelvis and upper legs.
Significantly, pain is in both sides of the body.

Patients who come to suffer from PMR do not necessarily develop GCA.

Generally speaking, GCA and PMR can successfully be cured with prednisolone (corticosteroid, steroid hormone: steroids) [7].

[7] Prednisolone is used to treat many different conditions such as allergic disorders, skin conditions, ulcerative colitis, arthritis, lupus, psoriasis, breathing disorders et cetera. Source: www.drugs.com. Ed.: Prednisolone is an invasive (body burdening) drug with lots of problematic side effects.

Treatments last on average 2 to 4 or 5 years, although a duration of up to 10 to 14 years is no exception.

GCA and PMR are considered to be more common in women than in men - although statistics of the Marijke Foundation show that the number of male patients tends to increase - and more common among white than coloured people.
GCA and PMR seem to be more frequent in populations of western and northern background [8].

The mean age of onset of GCA and/or PMR is usually considered to be over 50 years. However the statistics of the Marijke Foundation show that more and more patients develop the diseases at younger ages.

The most recent estimated number of yearly incidences [9] GCA and/or PMR in Europe is assumed to be 13 - 50 per 100.000 population over 50 years of age [10].
The estimated number of incidences each year worldwide is assumed to be over 4 million (calculated, 2014) and seems to be increasing.

GCA and PMR are usually considered to be auto-immune illnesses. They belong to a group of six to eight thousand of Rare Diseases, also referred to as Orphan Diseases.

Scientifically known symptoms of GCA and PMR are listed in Chapter 21. Symptoms of GCA and PMR, page 61.

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[8] Source: Orphanet.

[9] The rate or range of occurrence.

[10] Source: European League Against Rheumatism (EULAR).

5. Tragedies: time matters

Mrs. M. passed away at the age of 58.
One may say that she died from the multiple condition of Giant Cell Arteritis (MGCA). But in fact she died from meningitis.
The meningitis was caused by the listeria bacterium [11].
Mrs. M. was in coma when she passed away. She could not be saved because of severe brain damage (ischemic damage).

A tragedy, in many respects.

Standard medication (prednisolone: steroids) could not prevent the increase of severe flare-ups of MGCA. The disease had also entered the brain and the neck. In addition the drug azathioprine [12] was administered to compress the immune system i.e. to make it less sensitive, to calm it down. Unfortunately this opened the door for an invasion of the listeria bacterium, with all its consequences...

Mrs. M. suffered from MGCA for about 9 months, that is to say, from the moment the more severe symptoms revealed themselves. In retrospect, it was discovered that she had been suffering from GCA and PMR for a much longer time-frame and that the early signs of the developing diseases had not been recognised timely.

After Mrs. M. passed away the neurologist that accompanied her during the last days of her life - he was not the specialist who initially treated her - stated that she could have survived if GCA had been recognised, diagnosed and treated at an earlier stage.

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[11] Quite common in food; millions of them reside in refrigerators, in and around the house and farms, and usually do not harm healthy people.

[12] A drug commonly used to prevent the rejection of organs following a transplant.

For the partner and relatives of Mrs. M. hard to live with such a statement....
But indeed, it took about three months before the symptoms of GCA were properly recognised, the illness was diagnosed and medication was started.

Clearly 'a matter of time'.

Another sad and dramatic story is that of Mrs. K., the Marijke Foundation was confronted with some years ago when the team was consulted for information and advice.
Unfortunately, the Marijke Foundation was contacted too late.....

The symptoms of GCA and PMR were not recognised by the family doctor.
It took Mrs. K., in her seventies, twelve consults over a period of about three months before GCA and PMR were properly diagnosed and treatment was started.

However, in the meantime, the diseases had developed in such a way that the complaints became almost unbearable for Mrs. K., in spite of medication.
One day, she felt so miserable and was suffering so much from pain, that she went outside, desperately.
It was wintertime, extremely cold and freezing.
Seventeen hours later, Mrs. K. was found, frozen to death.

Again: 'a matter of time'.

Exceptional tragedies. But not only 'a matter of time'. Also a matter of life and death....

But in principle time matters for *every patient* that comes to suffer from, in particular, GCA.

As was mentioned before, the most feared risks, if the symptoms of GCA are not recognised in the earliest possible stage and diagnosis and treatment are delayed, are irreversible loss of eyesight, blindness and brain damage.
These are tragedies as well.

There are other risks of delays.
These include stronger side effects that come with the necessary higher doses of medication (prednisolone: steroids), the need for additional medication to try to limit those side effects and to attempt to heal physical damage, and prolonged treatment with all of these drugs, and their side effects as a 'bonus' [13].
It goes without saying that these infringements on the quality of life are also a tragedy.

But what is also a tragedy is that, until this very day, (too) many general practitioners and medical specialists around the world do not properly *recognise* the symptoms of GCA, as the Marijke Foundation learned from patient feedback and publications on the matter.

[13] We say: the remedy is sometimes worse than the disease. Multi-medication has apparently so many side effects, while the dangers of interaction between drugs are not always clear, that the German Government has decided to carry out scientific research. Especially among people from 60 years because multi-medication increases with age. Source: Germany, ZDF Moma, September 15, 2016.

It is true that the nature and diversity of the typical symptoms make it difficult to recognise and diagnose GCA and PMR.
The earliest, odd complaints are quite often seen as isolated complaints, as symptoms of a cold or injury of the muscles, and are treated accordingly by, for instance, physiotherapists. Usually without results and, consequently, patients are quite frequently sent to a number of different medical specialists.
As a result, (too) much time elapses before the diseases are properly recognised, diagnosed and adequate treatment is started, which entails more risks for the patient.

But are these tragedies avoidable?
Can these problems be overcome?
And if the answer is yes, how and since when?

6. Most wanted #1: Time

Time matters!

Virtually all diseases have a prehistory.
Already at an early stage, there are symptoms.
The sooner the earliest signs and symptoms of a disease are recognised, the sooner a condition can be diagnosed and treated, and, in general, the better the prognosis.
In more difficult cases, the better the survival rate.

From the previous chapters, it is crystal clear that time-saving is 'Most Wanted' and particularly crucial for the treatment of GCA.
So, the challenge is how to save the most time, with what and by whom.

With the help of a simple and effective tool?
That solves the problem of an obvious weak or even missing link in the route to treatment?

7. The better the question.....

..... the better the answer.

'A well-prepared patient'. A simple expression that also runs like a thread through this book.

A patient does not visit a doctor without a reason, is not feeling well, probably out of sorts, has complaints and is therefore not always able to formulate complaints and their history properly. Although general practitioners in particular are trained to decipher the proper meaning and 'demand' from words and clues of patients, this is not always possible, especially in the case of rare diseases.

What we see on the screen of a smartphone, a tablet or a computer is only a graphic interface - a visual 'translator' - between ourselves and a technical apparatus. Without that interface, we would not be able to see anything, to provide input (through the use of a key-board, a touchscreen, by voice et cetera) and consequently to ope-rate and to use those devices. The apparatus is not able to work and to respond on its own.

So how about an interface between a patient and a doctor?
An interface, that could be a tool for a patient's 'input', which would help to formulate a patient's complaints in an ordered fashion? Then a doctor would be able to determine the issue almost immediately and would be able to respond with a proper diagnoses and treatment, regardless of whether it is a rare or more common known illness.
An interface to meet: 'the better the question, the better the answer'.

8. The Symptomatrix ©

After the tragedy of Mrs. M. and information derived from a survey held among the members of a GCA/PMR patient group in The Netherlands in 2003, the Marijke Foundation concluded that a family doctor is very well able to take immediate steps for a diagnosis resulting in appropriate treatment, provided patients consult the GP with such a clear *combination of complaints* for the probability of GCA and/or PMR development to be evident.
Usually the diagnosis can be made by the general practitioner her/himself or in collaboration with a specialist.
The procedure of examination and laboratory tests is usually a matter of days, often less.
Treatment can be started almost immediately.

Obviously, this is the most ideal scenario for both the patient and the family doctor and/or medical specialist.
However it is obvious as well that even then not much time-saving can be achieved. Perhaps a day, although every day and every hour of time-saving is all the better.
This also means that *behind* the doors of general practitioners and medical specialists in principle but little time can be lost!
So the questions arise: 'What is the main reason for losing so much time that patients become seriously ill? Where else is the real problem of losing time to be solved, and how? Where else is the weak or missing link?

The answer is stunning simple: most of the time is lost *outside* the doors of GP's and medical specialists.
The reason? At what *stage* of illness patients present their complaints to the GP and *how* they do that.

As noted earlier, the diseases GCA and PMR are difficult to recognise and to diagnose for general practitioners and specialists.

If a patient consults the family doctor and is not well-prepared, this can have a problematic outcome. If a patient can't make sufficiently clear what the complaints are and, consequently, the GP is not able to recognise a *combination* of complaints as *characteristic* for GCA and/or PMR, it can be everything and for the GP it may initially be a kind of guesswork. The result is a considerable loss of time: at first dealing with individual complaints, for instance by physiotherapy, and next visits to various medical specialists until, over time, becomes clear what really ails a patient.
Of course there are exceptions as more GP's become familiar with the clinical picture of GCA and PMR, albeit slowly.

So the challenging objectives are:

a. helping patients and those around them to recognise in the earliest possible stage that GCA and/or PMR are developing
b. encouraging patients to visit the family doctor right away, well-prepared by the use of an interface
c. designing a simple tool for these purposes that can be used easily by everyone: patients, general practitioners, their assistants and medical specialists.

A tool. Practical. Effective and Efficient.
To prevent the loss of time: days, weeks, months and sometimes even years.
A link that is missing. A link to strengthen the chain.

Thus, since the autumn of 2003, we have witnessed the emergence of the

Symptomatrix®

The **Symptomatrix** is a Recognition, Diagnosis and Treatment Accelerator. It is a targeted symptom checklist consisting of an accurate listing of scientifically known symptoms of GCA and PMR [14] in a certain order and categorised.
The **Symptomatrix** is a self-help triage tool. It is an interface between patient and doctor, that reflects the worldwide developments of advanced e-health.

The name **Symptomatrix** encapsulates the combination of complaints that are characteristic for GCA and PMR: **matrix** of **sympto**ms.

In the list potential patients can tick-mark complaints in three categories:

A. Frequently observed complaints
   - 18 questions/symptoms
B. Less frequently observed complaints (a-typical complaints)
   - 4 questions/symptoms
C. Additional information
   - 6 questions
   - 2 fields for additional complaints/questions/information.

If a patient has tick-marked a combination of at least 5 complaints in category A. 'Frequently observed complaints', this should be considered a **signal** (the orange warning light) that GCA and/or PMR could be developing and therefore as an advice to visit the family doctor without delay.
After completion the e-form can be printed to be presented to the family doctor during a visit.

The **Symptomatrix** is understandable and accessible for everyone and is published on the Symptomatrix websites of the Marijke

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[14] See Chapter 21. Symptoms of GCA and PMR, page 61, and Chapter 22. References, page 62 onwards.

Foundation in English, German, French, Spanish and Dutch (refer to page 27 for website addresses).

The **Symptomatrix**, a **signal** to visit the family doctor as soon as possible for Early Recognition, Early Diagnosis and instant treatment of GCA and/or PMR. This will overcome the problem of risky delays and helps patients and medical professionals to save considerable amounts of time.

The **Symptomatrix**, a simple tool, an effective helper, acts like traffic lights and the lights in the dashboard of a car.

The weakest - or missing - link determines the strength of a chain. So, to recap:

Red. Patients are already seriously ill, and have been for quite some time and, in this context, more than they need to be. Fast diagnosis and instant medication is needed to prevent a patient from (further) physical damage of a lasting and sometimes irreversible nature.
Usually, damage already caused by delayed recognition of GCA and/or PMR and consequently late diagnosis and treatment cannot be reversed.

The time saved by a rapid diagnosis by GP's and/or medical specialists, can be expressed in hours and days.

Orange. When a patient develops GCA and/or PMR, there are always precursory signs. Early Recognition of those signs and complaints leads to substantial time-saving and subsequently to Early Diagnosis. This helps to avoid the risks of losing eyesight, blindness, brain damage et cetera in the case of GCA, and the irreversible side effects of heavy medication.

Time-saving, that can be achieved this way, can be expressed in weeks, months and in exceptional cases even in years, and is achieved through the use of the interface, the **Symptomatrix**, in the first place by patients themselves and those around them.

The **Symptomatrix** solves the problem of the weak/missing link.

Green. No sign of illness. Though the Marijke Foundation predicts that, in future, it will become possible to recognise risk factors at an early stage in order to prevent patients from even developing GCA and/or PMR.

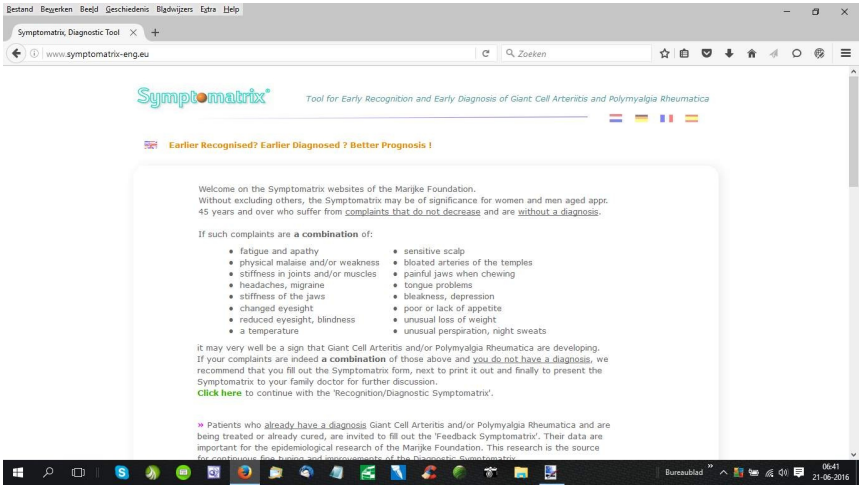
This can be achieved by patients themselves with the help of a future 'risk factor version' of the **Symptomatrix** and in cooperation with specialised medical professionals.
It goes without saying that time-saving this way will then reach the maximum.

9. The Symptomatrix, where to find ?

In the past, the **Symptomatrix** has also been available from the Marijke Foundation in print. However, for a number of years and for obvious reasons, the **Symptomatrix** is now published on the internet only:

English	:	www.symptomatrix-eng.eu
German	:	www.symptomatrix-de.eu
French	:	www.symptomatrix-fr.eu
Spanish	:	www.symptomatrix-es.eu
Dutch	:	www.symptomatrix.eu

It goes without saying that the **Symptomatrix** can also be found easily on the World Wide Web with search terms that match the complaints/symptoms of GCA and PMR.



10. The Symptomatrix, Blessing or Threat ?

Fact: The use of the **Symptomatrix** delivers time-saving which leads to Early Recognition, Early Diagnosis, Better Prognosis, Faster Recovery and Better Survival Rate of in particular GCA [15], and also PMR.

Fact: The **Symptomatrix** is effective and efficient. It is published on the internet in the four major languages and in Dutch, and is accessible and easy-to-use for everyone, from potential patients to family doctors, their assistants and medical specialists, all over the world.

Fact: The **Symptomatrix** is an efficient 'interface' between patients and doctors, and helps patients to become well-prepared: 'the better the question, the better the answer'.

Fact: A fast growing number of (potential) patients around the world finds the **Symptomatrix** by means of search terms that match the symptoms of GCA and PMR, and use(d) it.

Fact: The **Symptomatrix** promotes itself, simply through its presence on the internet and because it is easy to find.

This all makes the **Symptomatrix** inevitable. So why this book?

Suppose that before a simple tool like a screwdriver, a hammer, a can opener or a traffic light may be used, it would be required to scientifically validate them and if they were not approved, they are not allowed to be used. In other words, only scientifically validated tools would be allowed.

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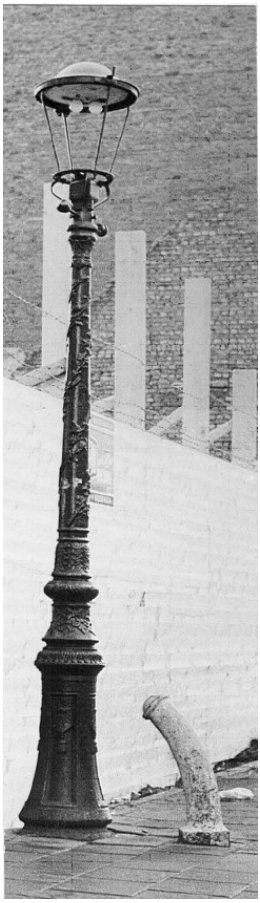
[15] .... although it is not a guarantee; the **Symptomatrix** is only a tool. The Marijke Foundation publishes the **Symptomatrix** as a service and support, and accepts no responsibility, of any kind, for the use of the information, indications or suggestions offered on the websites, in this book or in other publications.

This book? Because in scientific publications - although repeatedly the essential significance of Early Recognition and Early Diagnosis is emphasised, especially with regard to GCA - what has been and has to be achieved *behind* the doors of the medical profession and medical science is presented as the only way to realise solutions for the persisting time problem and the resulting risks.
Without a doubt scientific research, expertise, experience, innovative instruments and methods of general practitioners and medical specialists are essential for an efficient, exact diagnosis and treatment of GCA and PMR.



And all the efforts to provide guidelines for medical professionals, so that they become more alert to the combination of symptoms of GCA and PMR and can subsequently diagnose instantly, are of course of great value as well.
But, for years, it is a mystery why a simple helping tool, the **Symptomatrix**, with which *substantial* time-saving can be achieved, is not promoted and not even mentioned or referred to in relevant scientific publications and, even more important, in guidelines for GP's.

"Hmmm, yeah, there you have another list....., yeah, those lists....."
From patient feedback, the Marijke Foundation learned that GP's and specialists sometimes wipe the **Symptomatrix** from the table.
So the Marijke Foundation felt the need to publish this book as well to emphasise that the relation between patients and medical professionals is rapidly changing. The classic division of roles, whereby a timid, shy and ignorant patient, with no idea of what is going on, looks up at doctors with their knowledge and their wisdom, is a thing of the past.

Patients are becoming more and more self-conscious customers, self-aware clients.
But it seems that this process is not always heartily welcomed and accepted by the medical society.
Therefore, it has to be said in the context of and the issues in this book that, if GP's and medical specialists are not prepared to accept the **Symptomatrix** for GCA and PMR - and scientifically substantiated Symptomatrix-like tools for other diseases - they are ignoring 'the well-prepared patient' and the advantages of these developments, also for themselves. Thus in a way, they are to blame for losing time and the consequences of that.
Of course, as mentioned elsewhere in this book, it is a matter of getting used to these changes: 'a matter of time'. But here it has a double meaning: the sooner medical professionals adapt to the developments, the more time is gained in general.

"Yeah, yeah, those lists...."
In spite of such and similar reactions, it is obvious that the **Symptomatrix** does the job anyway. Whether wiped from the table or not, patients do consult a doctor and do present complaints, to what diagnosis it may lead.
And that is exactly what the **Symptomatrix** is meant for! Remember the orange traffic light, the warning light.

An additional reason for publishing this book is that the Marijke Foundation can not emphasise enough the cost advantages of the **Symptomatrix** for GCA and PMR.
It is the less costly way!
To start with: the use of the **Symptomatrix** is free of charge, for patients and for medical professionals.
Furthermore, using the **Symptomatrix** results in significant savings: in the diagnosis and treatment of the diseases, in reduced visits to physiotherapists and other different medical specialists, in reduced pressure on healthcare systems, in lesser expenditures for insurance

companies, employers and the self-employed, and last but not least, in the patient's pocket.

The

Blessing or Threat?

Finally, the Marijke Foundation felt that on the occasion of 12½ years of pioneering work, with the focus on the development and global promotion of the **Symptomatrix**, a book had to be published in which the history, the Marijke Foundation wrote since 2003, could be documented as well.

11. Some conclusions

Also because of the free worldwide electronic distribution, this book will certainly add to more public awareness around the world of the existence of the **Symptomatrix** for GCA and PMR and its benefits.

It may also be an extra boost for the worldwide process that in general more and more patients search and find an explanation on the internet for their complaints with the help of similar tools.

Technology driven developments have great influence on various facets of health care and cause irreversible changes.
For instance they 'force' medical professionals to cooperate more closely with well-prepared patients and to make use of the information and knowledge they bring in during their visits.
The benefits include time-saving, better outlook for patients, and positive impact on cost control.

The symptoms of GCA and PMR are usually hard to recognise.
A well-prepared patient, with the help of the **Symptomatrix**, supports the family doctor in fast recognition of GCA and PMR, which in most cases leads to diagnoses and treatment without delay.
Because it is a fact that most time-saving is not in the hands of medical professionals, they simply *have* to grant the **Symptomatrix** the benefit of their own and/or scientific doubt.

The stronger the links, the better the chain. So, how about win-win?
And, in trendy words, 'quality time' for patient and medical professional instead of 'quantity time'?

Symptomatrix®

The **Symptomatrix** is a simple and effective tool in the hands of medical professionals as well, and can be compared to the stethoscope, blood pressure metre and other 'common' medical instruments.

In this respect the **Symptomatrix** deserves and needs to be promoted around the world by and among national health services, the medical society, insurance companies, employers, patient organisations, current and former patients.

'Health is the exclusive domain of the medical profession and medical science'.
'Do not enter our territory'.
'Don't bother us with practical solutions from the laymen'.
Anyone reading these spicy words in, let's say, the year 2025, would furrow their eyebrows, smile and wonder: "Back in 2016? So old school? Stuck in conventions? So neglectful in re-inventing themselves? Are you serious?!"

12. Informative statistics

The information in this chapter is not the outcome of in-depth scientific research. However, the information seems to be interesting and challenging enough to be used as suggestions for scientific research.

Statistics, derived since 2008 from **Symptomatrix** patient feedback forms from various countries, indicate that:

1. the number of patients GCA and/or PMR tends to increase and no longer seems limited to western and northern countries
2. the age of onset of GCA and/or PMR appears to become younger that 45-50 years of age; with some patients developing the diseases already in their 20s, 30s and early 40s
3. GCA and/or PMR are increasingly more common among men
4. the average delay in recognition and diagnosis of GCA and/or PMR varies between 10 and 16 weeks
5. the majority of patients are not diagnosed by the family doctor and are sent to various medical specialists for a diagnosis
6. other medical specialists and not just rheumatologists are also able to properly diagnose GCA and/or PMR
7. the combination of a severe flu, a bronchial infection/inflammation or similar infection during a period of stress in work and/or private life quite often seems to trigger GCA and/or PMR
8. the majority of GCA and/or PMR patients have a medical history of being sensitive and prone to small ailments and diseases
9. the number of patients that (also) suffer from a-typical complaints is quite low.

The majority of patients that come to suffer from GCA and/or PMR are not fit for work, need a lot of medication, have to visit the family doctor and/or medical specialist regularly for control, and such for a long period of time, for about 2 - 5 years and sometimes longer.

In our opinion at the Marijke Foundation, it makes sense to use the above and related observations from other sources for scientific research. This data can also be used for forecasting purposes, in view of the development of costs for employers, mental and physical health care, insurances, social security benefits, social implications et cetera.

Earlier in this book, the Marijke Foundation already pointed to substantial financial savings in those fields that can be achieved by the use of the **Symptomatrix** by (potential) patients and medical professionals.

13. The Symptomatrix and the future

There can be no doubt about the *persisting significance* of the

It is a matter of realism and common sense to determine that Early Recognition of the early symptoms of GCA and PMR will remain the keyword. Regardless of whatever cause for the diseases are found, whichever risk factors are discovered, new drugs will be developed to replace the invasive steroids, advanced diagnostic techniques and methods will be designed, guidelines for family doctors and medical specialists will be developed and published, networks of centres for GCA and PMR specific medical care will be organised, and so on.

Early Recognition ▸ Early Diagnosis: 'a matter of time' and 'time matters'!
And let's not forget: the most time can be saved *outside the doors of medical professionals*, that is, by patients, well-prepared visiting the family doctor.
As such the **Symptomatrix** will *remain indispensable*, probably until something like the small ingenious devices, supposed in Chapter 1. Simplicity and feet on the ground, page 4, will be developed.
But even then....

14. Patient Organisations

Patient organisations, well organised, without commercial aims, run by reliable, dedicated people in cooperation with professionals and professional organisations in the field of GCA and PMR and related areas, and recognised by the Government and National Health Organisations, are of the utmost importance for patients.
They are another indispensable link in the chain.

Their range of support is usually wider than just supplying information and providing answers to disease-related questions of patients. 'How to live with GCA and PMR' and 'You are not Alone' cover a variety of help and support, from adapted lifestyle and special activities to food and nutrition, and much more.

Relapse of in particular GCA, during or after treatment and recovery, is most feared and not rare. Adequate patient information in this respect is essential for, once again, time-saving. This is provided as well by dedicated patient organisations.

In the United Kingdom patient organisations are very well organised and very active.
For detailed information and advice in the English language concerning GCA and PMR, including useful links, and without excluding others, the Marijke Foundation recommends:

http://www.pmrandgca.org.uk/

http://www.pmr-gca-northeast.org.uk/

with which the Marijke Foundation has maintained fruitful contact for already several years.

Patient organisations in a limited number of countries, engaged in GCA and PMR, are listed on:

orphanet http://www.orpha.net

Information about the organisations can be found by the use of the search terms 'Giant Cell Arteritis' and 'Polymyalgia Rheumatica'.

There may be patient organisations GCA and PMR in more countries around the globe. Unfortunately, so far (2016) no complete overview exists. For further information, the best way is to contact organisations in a specific country dealing with Vasculitis and Rheumatism. A listing of patient organisations Rare Diseases may be helpful:

EURORDIS Rare Diseases Europe http://www.eurordis.org/sites/default/files/members.pdf

15. History of the Symptomatrix

August 2003

- Less than a month after the Marijke Foundation was founded, the website www.marijke-foundation.eu, developed by the Marijke Foundation, is launched, in the Dutch language.
- Some information about the significance of Early Recognition of GCA and PMR is already published on the website as well.

2003 - 2004

- Data from the medical history of Mrs. M. and 68 members of the Dutch patient group 'Dullemond' forms the basis for the first concept of the Symptomatrix, in the Dutch language.
- The concept of the Symptomatrix is fine-tuned with additional data derived from various scientific publications.
- A useable β-version of the Symptomatrix in the Dutch language is published on the website of the Marijke Foundation.

June 2005

- Dr. Ron Voorbij MD PhD - Clinical Pathologist, head of the laboratory of the Utrecht Medical Centre, The Netherlands, and a specialist in diagnostics - joins the Marijke Foundation and is assigned chairman of the Symptomatrix (development) Team.

2005 - 2007

- Several modifications, adjustments and additions to the Symptomatrix concept are made under supervision of Dr. Ron Voorbij.
- Replacing the β-version, the Symptomatrix 1.0 is published in print and on the internet, in the Dutch language. It also includes extended information about the Marijke Foundation.

2008

- The Symptomatrix 1.0 is translated into the English language and published both in print and on the internet.
- Technical improvements of the Dutch and English Symptomatrix websites are implemented.
- Feedback modules are implemented on the Symptomatrix websites for statistical purposes and to improve the Symptomatrix.
- β-versions of the Symptomatrix in German, French and Spanish are published on the internet only.

September 2009

- The Symptomatrix Team meets Prof. Bhaskar Dasgupta - rheumatologist of NHS Southend Hospital near London - in Amsterdam. At that time, Prof. Dasgupta is a member of an expertise team on PMR and GCA in the UK.
- Prof. Dasgupta praises the Symptomatrix as (quote): "the first really useful instrument for Early Recognition and Early Diagnosis of GCA and PMR I have ever seen."
- According to Prof. Dasgupta, the Symptomatrix should (quote): "instantly be denominated as part of the Patient Education Program in the United Kingdom" (ed.: a project supported by the NHS, the National Health Service).

2010

- The Symptomatrix Team performs an extensive survey on a wide range of scientific articles concerning GCA and PMR, resulting in publication in print and on the internet of the extended Symptomatrix, version 2.0., in Dutch and English.
- Shortly after version 2.0, the upgraded version 2.1 is published, which includes more extensive feedback modules for the benefit of statistics.
- The Symptomatrix 2.1 is published in German, French and Spanish as well. They replace the β-versions in these languages published in 2008.

- The website of the Marijke Foundation is divided into separate Symptomatrix websites by language and a website containing information about the Marijke Foundation.

2011-2013

- Because search engines such as Google and Yahoo continuously demand more and more from websites with respect to findability by search terms, a great deal of attention, time, effort and money is dedicated to Search Engine Optimisation (SEO) of the Symptomatrix websites.
- Because the Symptomatrix is printable directly from the websites, there is no further need for printed Symptomatrix forms and so that service is terminated.

May 12, 2011, Casa 400, Amsterdam; Congress Rare Diseases. Han Kruyswijk presenting the ins and outs of the Symptomatrix for GCA and PMR.

May 12, 2011, Casa 400, Amsterdam; Congress Rare Diseases. Dr. Ron Voorbij explaining the possibilities of the Symptomatrix for other rare diseases than GCA and PMR.

2014

- As part of SEO i.e. better findability, new Symptomatrix landing pages in English, German, French, Spanish and Dutch are designed, developed and published on the internet.
- The landing pages per language also serve to make a distinction between (a.) potential patients that search for the Symptomatrix to find an explanation for their complaints and (b.) patients that are already diagnosed, treated, under treatment or recovered. Potential patients (a.) are led to the respective Symptomatrix websites. The other category of visitors (b.) are led to the Symptomatrix Feedback websites.
- As a result, the Symptomatrix websites are radically modified: content, texts, lay-out and technically.
  The Symptomatrixes 3.0 are published on the respective websites by language, as well as the separate Feedback Symptomatrixes 3.0.
- The Marijke Foundation decides to suffice with translations of the Symptomatrix in the four main world languages. Feedback

from various countries of the world proves that there is hardly a need for more translations.

2015

- The Symptomatrix Team looks back on 2015 and previous years, and concludes that the mission of the Marijke Foundation is almost completed, and the objectives have been achieved by what has been accomplished since 2003.
- SEO of the websites is, however, a continuous (quarterly) process of updating, which, on behalf of the Symptomatrix Team, is taken care of by Destycon, a company specialised in this technical discipline.

2016

- There are various reasons and motives for writing and publishing this book 'a matter of time'. The reader finds them all on the front and back cover, and in the book, of course.
- With the publication of the book, the Marijke Foundation remembers 12½ years existence of the Symptomatrix in the first place.

16. About the Marijke Foundation

Quote from the websites:
"With the Symptomatrix, the Symptomatrix Team / the Marijke Foundation is pioneer since 2003 in Early Recognition and Early Diagnosis of Giant Cell Arteritis and Polymyalgia Rheumatica."

The Marijke Foundation (Dutch: Stichting Marijke MHKO Fonds) was initiated on the 20th of May, 2003 and founded on the 30th of July, 2003 by Han Kruyswijk shortly after his wife Marijke, aged 58, died of MGCA.

Marijke Foundation

In accordance with its mission statement, the specific aims and related activities of the Marijke Foundation are, in order of priority:

1. Early Recognition and Early Diagnosis of GCA and PMR; for this purpose: development, publication on the internet and maintenance of the **Symptomatrix** in five languages.
2. Worldwide publicity to encourage the use of the **Symptomatrix** by the public and medical professionals.
3. Supporting 1. and 2. by initiating and maintaining (inter)national relations with different organisations.

The Marijke Foundation is *not* a patient organisation. So, the Marijke Foundation has no patient-members. It does have an indirect relation with patients that suffer(ed) from GCA and/or PMR through patient organisations in The Netherlands and abroad or on an individual basis resulting from patient's need for information.

The Marijke Foundation is fully independent, has no commercial aims or profit motives and there are no other financial sources other than donations and interest.

The Marijke Foundation is recognised by and registered with the Dutch authorities as a charitable organisation (Dutch: ANBI), file 21960, RSIN 8124.26.101.

Based on a flexible short- and medium-term policy, the Marijke Foundation, i.e. the Board, operates primarily as a working team under the name "Symptomatrix Team". It seeks practical results from which (potential) patients can benefit directly.
Governing is of secondary importance.

The four members of the Board of the Marijke Foundation contribute to the foundation and its work on voluntary basis at their own costs; no salaries, fees or costs paid.

Over the years the team (the Board) of the Marijke Foundation has not changed, which benefited the continuity and effectiveness, and continues to do so.

With the proven effectiveness of the **Symptomatrix** in practice, the Marijke Foundation i.e. The Symptomatrix Team, has, in principal, already achieved its initial ambitions and goals, set in 2003, years ago.

The home base of the Marijke Foundation is Amstelveen in The Netherlands.
Amstelveen is a village of about 80.000 inhabitants, which is a suburb almost integrated into the southern part of the Dutch capitol, Amsterdam. Amstelveen is quite close to Amsterdam Schiphol Airport and the 'Amsterdam Wood' where the internationally renowned 'Bosbaan rowing course' is located.
Amstelveen is the second greenest town in The Netherlands for many years.
Anyone who visits Amsterdam (recommended!) should not hesitate to contact the Marijke Foundation. A visit is always appreciated.

17. Support

First of all, the Marijke Foundation wishes to express its sincere gratefulness for all donations received over the past 12½ years from the Friends of the Marijke Foundation [16].

Organisations, who sympathise with and/or support the pioneering work of the Marijke Foundation, or with which the Marijke Foundation maintains contact, are:

Netherlands. Former patient organisation, now part of the Dutch Rheumatism Foundation.

Netherlands. Laboratory service for GP's.

Scotland. Patient organisation.

England. Patient organisation.

United Kingdom. Umbrella patient organisation.

USA. Patient organisation.

Netherlands. Media concepts and publishing. Sponsor and main facilitator of the Marijke Foundation.

[16] ING Bank, IBAN: NL14INGB0651831911

Netherlands. Training and consultancy in the field of Administrative Information Provision and ICT. Sponsor of the Marijke Foundation.

Netherlands. Training of and trading in horses. Coaching of the management of SMEs.

International translation agency with offices all over Europe.

Initiative and service of Mondo Agit. Translations free of charge for non-profit organisations and initiatives.

Netherlands. Search Engine Optimisation (SEO), Wordpress Webdesign, Wordpress Webshop, Content Management.

The members of the Board have been, are and will remain as well sponsors of the Marijke Foundation.

18. Postscript

Goals, a team and teamwork

Why is it that, not rarely with small dedicated teams in particular, it is possible to achieve (inter)national successes quickly and efficiently by providing simple, smart and functional solutions for major issues and serious problems?

The effectiveness and success of a team depend on key success factors related to the goals and/or mission for which it is created.
Firstly, a combination of appropriate knowledge, skills and experience of each team member, that complements and strengthens each other, is imperative.
Furthermore indispensable is commitment and a sharp focus on the concerted goal.
The team has to believe in and share the same objectives, dedication and willingness to cooperate as well.
It also has to invest maximum efforts, the most unconditional trust in and respect for each other and, in particular, in each other's expertise and judgement.
And not to forget, the prerequisite that team members must be able to feel and emit that individual interests, egos, status and reputation, if at all present, are subservient to the goals and/or mission of the team.

In this way, achievements become a team effort, whether the team succeeds or fails.
In order to avoid the latter, team members need to be sharp and alert to each other, with persisting focus on the targeted goals. In this way, different opinions, comments and criticism - even if they are spiked or confronting - will be experienced as useful attempts to place issues in a different context or perspective. Simply put in the sense of teamwork: the ball is played and not the person. And thus

they are more easily to 'digest' as contributions to the intended success.

The Marijke Foundation / the Symptomatrix Team is proud to have met all of the essential requirements above since they were founded in 2003.

May 2010; f.l.t.r.: Dr. Ron Voorbij (Chair Symptomatrix Team), Drs. Mariëtte Sibbing (Minutes Secretary), Han Kruyswijk (Secretary), Eric Gerritsen (Chair), Rob Berkhof (Treasurer).

Requirements, which also resulted in a vision, approach and mind-set that are sometimes denominated by third parties as being 'ahead of time'.

As a result, there is the sometimes critical attitude of the Marijke Foundation towards individuals, groups, organisations and the medical scientific society.
This will not change because there has been, is, and will be no other intention than to contribute to progress, innovation and different ways of thinking and doing. At the heart of this criticism is the interests of all (potential) patients of GCA and PMR and their caretakers around the world.

The fact that the team consists of dear, warm, dedicated and close friends is quite a unique added value.

Fragmented research

Over the past years, the Marijke Foundation has noticed that scientific research on GCA and PMR is being carried out in many separate locations around the world.
Of course, most researchers know of each other and their work through meetings, symposia, networking, publications et cetera.
But, as far as the Marijke Foundation knows, there is no international coordination and, thus, no dedicated coordinating centre for GCA and PMR research.
As a result, it is not inconceivable that money and time, invested in research, is duplicated.
In order to avoid this, international coordination in GCA and PMR research would be a good and efficient idea. It would save money and time.
Moreover a good idea, because patients around the world are not really interested in phenomena that are important for scientists such as publications, individual reputations, status and so on. They want solutions for their problems. They simply want to be healthy again and as soon as possible.

Most wanted #2: innovative medication

The **Symptomatrix**. Gaining time. The Earlier Recognised, the Faster the Diagnosis, the Better the Prognosis and Survival rate! Very true. But what's next? What about after the diagnosis..., the treatment..., the medication..., those steroids...?

In the view of the Marijke Foundation, the challenge or, better yet, the primary assignment of medical research should already have been to concentrate - money, time et cetera - on finding the cause of GCA and PMR, exclusively aiming at the development of new, less harmful medication to replace the good old, effective, but very invasive prednisolone (steroids) - although there will always be unwanted side effects of medication.

The Marijke Foundation strongly believes that this can only be accomplished by combining forces, efforts, knowledge and funds in a project that is part of the international cooperation, as suggested earlier in this chapter. This should involve researchers around the globe and be led and coordinated by a small international team of experts on GCA and PMR.
The estimated number of incidences GCA/PMR each year, already over 4 million worldwide (calculated, 2014) and apparently increasing, seems to be advantageous enough for a pharmaceutical company to be interested.
The Marijke Foundation knows that one company already is interested and sincerely hopes they eventually will take that initiative if research remains fragmented over several researchers around the world, as is the case until this very day.

More Symptomatrixes

The Marijke Foundation sincerely hopes that its pioneering work, the **Symptomatrix** for GCA and PMR and this book will inspire others around the world to develop simple tools, similar to the **Symptomatrix**, for the many other diseases, rare or not but also difficult to diagnose, whose healing - if at all possible - is so dependent on the earliest possible recognition of symptoms and on how quickly well-prepared patients visit a doctor [17].

Finally

In this respect, the Marijke Foundation continues to wonder why the acceptance and use of a simple, practical, proven efficient and effective tool by the medical society should be subject to scientific validation.

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[17] Those who are interested in the concept of the **Symptomatrix** for other diseases are invited to contact the Marijke Foundation.

After all, the **Symptomatrix** for GCA and PMR is based on the findings of scientific publications and information that has already been validated [18].
Double-validation adds nothing, is redundant and so it doesn't make sense.

E-health, e-consult, the GP at home, self-management, self-help triage and other rapidly developing, mainly information technology driven phenomena....
Today's and tomorrow's patients: well-prepared patients....
The **Symptomatrix**: a simple and effective tool....

Unstoppable and irreversible developments, worldwide....

The acceptance by the medical society: also 'a matter of time'?

Symptomatrix®

[18] Refer to Chapter 22. References, page 62 onwards.

19. The other side of the e-coin

Of course, there is also something to be said for the reluctance of general practitioners and medical specialists with respect to the variety of tools and all sorts of information concerning health technology and the internet offers to the public. Certainly, not everything is responsibly substantiated, reliable and effective. On the contrary. There is a lot of chaff under the wheat.
For doctors and specialists, it is therefore not always easy and/or acceptable to deal with assumptions or firm conclusions of patients that are based on information from the internet.
The internet also has the potential to create anxiety amongst people who are looking for the meaning of complaints. This can result in patients who are convinced that they are ailing from a specific disease because the internet has made them believe. And these people then flood the GP's office.
Furthermore, a lot of complaints are quite common, such as headache, fatigue, a temperature, stiffness, et cetera, and may not always indicate something serious.

Some statements in this book:
'Today's patient is no longer the traditional patient of the past'.
'Today's and tomorrow's patients are more empowered, critical and demanding, and tend to be in control'.
'Digital healthcare, e-health, e-consult, the GP at home, self-help triage, self-management and other rapidly developing, mainly information technology driven phenomena'.
'The well-prepared patient, with the help of information from reliable sources on the internet '.

But that also creates responsibility and obligations on the part of the patient.

The number of apps that determine what one could ail, what a peculiar spot on the skin could mean and of which the GP or specialist can even receive a notification, and so on, and so on, is increasing.
In addition, so-called 'funnel methods' are increasingly published on the internet (symptom finders, symptom checkers et cetera). After the input of the age group, gender, living area and sometimes even more personal data, complaints can be entered and, then, the system sorts out what disease it could be.
In general, the more complaints are entered, the more precisely the system is supposed to be able to search and find.
There are at least two types of results possible.
On the one hand, a usually large list of possible illnesses to choose from [19], sometimes in order of probability - at least according to the system.
On the other hand, only one possible illness, and that may be correct but can also be something entirely different than what really ails a patient; hence fifty-fifty chance.
Such apps and methods are technically extremely complex, but also that much complex because of the number of complaints per illness from an already huge range of common and rare diseases.
For example, there are about 600 different known muscle diseases, six to eight thousand rare diseases and more than 100 types of cancer [20], each with their own characteristics and matrix of symptoms.
Moreover, many diseases have common symptoms. So the chance that the results in apps and funnel methods are right is, by definition, low.

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[19] The Marijke Foundation tested a number of reliable-looking English-language funnel sites: on the basis of complaints, that are very characteristic for GCA, the score varied between 9 and 16 possible diseases (...), among them GCA.

[20] Sources 2016, respectively Prinses Beatrix Spierfonds (NL), Orphanet and Eurordis (EU), AVL Nederlands Kanker Instituut and Stichting "Verdriet door je hoofd" (NL).

Though such apps and funnel methods may one day be developed to a point that they become reliable, now, in 2016, they are still in their infancy. They are quite similar to language translation programs that usually produce crippled sentences. As a result, doctors can repeatedly be faced with patients who seem well-prepared but visit them with misinformation and incorrect indications.

The difference between the **Symptomatrix** and the methods mentioned before is that the **Symptomatrix** is unambiguously based on only two specific diseases (GCA and PMR) with one denominator (vasculitis) for which a number of scientifically known complaints, only in a combination, are characteristic. The **Symptomatrix** does not diagnose, but only warns and advises a patient to visit the family doctor as soon as possible, provided enough complaints are tick-marked to make the suspicion of GCA and/or PMR plausible.

Unfortunately, there is no manual for finding and filtering reliable sources of information and advice on the internet.
So, it is primarily the responsibility of patients themselves to become well-informed and to look meticulously and critically on the internet for information, their meaning, value and sources before visiting a doctor.
It is also very important for potential patients to search for the actual publishers and owners of websites. They are often there out of purely commercial intentions, and the privacy may also become at risk.
Restraint and doubt are good counsellors!

Georg Christoph Lichtenberg (Ober-Ramstadt near Darmstadt, 1st of July 1742 - Göttingen, 24th of February 1799) was a scientist and the first German professor in experimental physics, but was also a writer, a humorist, and a satirist who was greatly feared by former rulers. He is considered to be one of the greatest intellectuals of his time.

In addition to other work, most of which was discovered only after his death, he wrote a large number of telling aphorisms.
One is: "One will read, not too much, only the best and wonders word by word 'is it true what I read'."
This was true yesterday and today, in regards to hearing and seeing as well, especially in relations to the media and, above all, the internet when it comes to health.

It may seem somewhat contrary to the e-tenor of this book, but in any event, the family doctor is superior to the internet.
The Marijke Foundation firmly believes that those who take their health seriously, but are in doubt, should always visit the family doctor right away on the basis of serious complaints, regardless of what can be found on the internet about them.

There are signs that doctors, who keep abreast of the times, are open to technological advances. In particular to e-consult: consulting the GP about questions and complaints via contact forms on their websites in lieu of visiting them. Efficient and cost-effective.
But again, patients have to be aware of their responsibility.
Certainly, not all complaints and health related questions are suitable for an e-consult. In urgent situations or when in doubt about urgency, in case of peculiar or severe side effects of medication and especially when complaints worsen or change, an immediate visit to the family doctor or medical centre is definitely the best choice.
The symptoms of Giant Cell Arteritis (GCA) are a prime example of this: ' a matter of time '.....!

20. Credits

Mrs. Ank Dullemond - The Netherlands

The Marijke Foundation is very grateful for the support of Mrs. Ank Dullemond. Being a patient GCA herself, at the beginning of this century she initiated a patient group GCA/PMR and organised meetings for fellow sufferers. In 2004 Mrs. Ank Dullemond provided the Marijke Foundation with the anonymous medical history of 68 patients GCA and/or PMR. The information, together with information from other sources, formed the basis for the earliest versions of the Symptomatrix.
The Marijke Foundation came into contact with Mrs. Ank Dullemond through the network of the temporary members of the 2003 and 2004 Board, Mrs. Mignonne Smallegange and Mr. Huub Grubben, for which the Marijke Foundation is of course equally grateful.

PMRGCA Scotland (Dundee) and PMRGCA North East (Newcastle)

http://www.pmrandgca.org.uk/ http://www.pmr-gca-northeast.org.uk/
In 2008, the Marijke Foundation came in contact with these organisations in the UK because of their interest in the Symptomatrix.
Mrs. I. Jean Miller, founder of PMRGCA Scotland, and Mrs. Mavis Smith, founder of PMRGCA North East - with these initiatives they did groundbreaking work in the UK in spite of both being patients GCA and PMR - have since supported the Marijke Foundation in its work and the expansion of the network of international contacts, within the limitations of the work and interests of their organisations. The Marijke Foundation is grateful to them and also for the opportunity they granted in May 2010 to present the work of the Marijke Foundation as well during the Launch and Press Presentation Event of PMRGCA North East and the Northern Rheumatology and Ophthalmology Meeting in Newcastle, England.
Furthermore the Marijke Foundation is grateful to Mrs. Mavis Smith and Mrs. I. Jean Miller for the initiation of the contact with Professor Bhaskar Dasgupta, rheumatologist at the NHS Southend Hospital in the UK and an expert in the field of GCA and PMR, which in 2010 resulted in the opportunity, offered by Prof. Dasgupta, to give a presentation about the work of the Marijke Foundation to the Essex Rheumatology Association.
The Marijke Foundation especially appreciates the warm continuing personal contact with Mrs. I. Jean Miller and Mrs. Mavis Smith.

May 12, 2010, Life Centre, Newcastle, England.
Launch of PMRGCA North East and
Northern Rheumatology and Ophthalmology Meeting.
Han Kruyswijk explaining the significance of the Symptomatrix.

May 5, 2010. Han Kruyswijk is welcomed at the Highlands House,
Chelmsford, England, for the presentation of the Symptomatrix
to the Essex Rheumatology Association.

May 4, 2010; Southend, England. Han Kruyswijk, introduced by Prof. Dasgupta, in conversation with patients GCA and PMR.

Per Mondo - Europe

http://www.permondo.eu/

Dutch is the native tongue of the Marijke Foundation. The Symptomatrix is published on the internet not only in Dutch, but also in the English, German, French and Spanish languages.

Per Mondo is an initiative created and managed by the European translation agency 'Mondo Agit' with their head office in London, UK.

The main aim of Per Mondo is to help non-profit organisations and initiatives in translating texts and websites, free of charge.

The Marijke Foundation is very grateful for the support of Per Mondo i.c. María Carolina Aguirre Jordán obtained when translating the Symptomatrix into the Spanish language and, last but not least, proofreading the manuscript, written by the Marijke Foundation, by Tania Mariani and Matt Hattam for proper use of English in this book.

Furthermore, the Marijke Foundation is very grateful to Per Mondo for their willingness to translate 'a matter of time', as a donation, at no cost, into German, French, Spanish and Italian, for publication as e-books in the course of 2017.

Angela and Jan Ruijgrok, Prof. Peter Kirschenmann, Netherlands

Personal friends, of German origin and friends of the Marijke Foundation, have contributed substantially to the translation of the Symptomatrix into the quite difficult German language, for which the Marijke Foundation is very grateful.

Mrs. Kitty Kruyswijk - van der Woude, Netherlands

Mrs. Kitty Kruyswijk - van der Woude, former English teacher, translated some texts that came afterwards. The Marijke Foundation is grateful to her for these voluntary contributions.

ItWebservices, Amsterdam - The Netherlands

www.itwebservice.nl

In the earlier days of the Symptomatrix on the internet, this small company assisted the Marijke Foundation in technical preparations and, at later stages, in technical implementation of necessary interactive elements in the Symptomatrix websites.

Destycon, Mijdrecht - The Netherlands

www.destycon.nl

Since the Symptomatrix on the internet reached its final lay-out, design and content, this company, specialised in SEO (Search Engine Optimisation), takes care of the remaining main issue: continuously ensuring the Symptomatrix websites can be found as fast as possible in search engines for words and phrases relevant to what the sites are offering.
Destycon renders this service free of charge, as a donation, for which the Marijke Foundation is very grateful.

21. Symptoms of GCA and PMR

The diseases are almost always presented as a *combination* of at least 5 complaints in category A.

A. Frequently observed complaints:

- fatigue and apathy
- bleakness, depression
- physical malaise and/or weakness
- stiffness in joints and/or muscles
- headaches, migraine
- sensitive scalp
- bloated arteries of the temples
- stiffness of the jaws
- painful jaws when chewing
- tongue problems
- changed eyesight
- reduced eyesight, blindness
- a temperature
- poor or lack of appetite
- unusual loss of weight
- unusual perspiration, night sweats.

B. Less frequently observed complaints (a-typical complaints):

- Severe ache, deeply in the ear, that is diagnosed and treated by the family doctor or medical specialist as the effect of cold but nonetheless does not disappear
- Notable increased desire for sugar, sweets, cakes, sweet drinks and so on
- Necrosis of the skin, also under the hair of the head (necrosis is a condition of pathologic death of living tissue)
- Sleeping problems, disrupted sleep pattern.

22. References

Symptomatrix: sources, scientific substantiation, verification.

Marijke Foundation, starting position 2003

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. Deutsche Gefäßliga e.V., Germany
. DocCheck Flexikon; Das Medizinlexikon zum Mitmachen, Germany
. Vasculitis Foundation, USA
. Mayo Clinic, USA.

23. The authors

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Rob G. Berkhof (left...)
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Registered Master ICT.

Treasurer of the Marijke Foundation.

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Owner of Dogat Beheermaatschappij B.V. and The Business Collection.

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Han Kruyswijk

Secretary of the Marijke Foundation.

Former manager R&D and publisher new and multi media with Elsevier Science Publishers. Owner of Cint MMedia, a small media publishing company.

The authors / members of the Board of the Marijke Foundation also form the

Symptomatrix Team
Marijke Foundation

24. Social involvement

The Marijke Foundation is well aware that it is part of an (inter)-national society where, in addition to health problems, there are a great many varying difficulties.
Therefore the Marijke Foundation sometimes supports good causes in other fields.

December 16, 2014, Radio NH Foodbank Campaign.
Han Kruyswijk with anchor woman June Hoogcarspel - who organised the 'food'raising - after having bought groceries for a couple of hundred euro's on behalf of the Marijke Foundation, and delivering them in the studio.

The Marijke Foundation also donated a used Yamaha digital piano to a school in one of the poorest quarters of Lisbon where they lack money and means for music lessons. The gift was part of the 2016 project 'Music for All', which was initiated by three students of the Hageveld College in Heemstede (NL).

Also in 2016, a second used digital piano, a Roland RD100, was donated to eldercare centre 'Het Zonnehuis' in Amstelveen (NL).

"The future interests me far more than the past,
as I intend living in it."

(Albert Einstein, German - American physicist, 1879-1955)

Reminder: request

This book, which does not bear its title 'a matter of time' without reason, can be of great importance for women from about 40 to 45 years of age, sometimes even younger. This also holds increasingly for men.

The information helps to recognise strange complaints as symptoms of two rare diseases which are very difficult to recognise and to diagnose.
Moreover the conditions seem to become less and less rare.

Hence the request by the Marijke Foundation to forward this free e-book to as many e-mail addresses as possible since there may be potential patients among the addressed.

They will be grateful for the information as it may help them to prevent the often serious risks of recognising symptoms too late and, consequently, late diagnosis and delayed treatment.

a matter of time

Dr. Ron Voorbij MD PhD, Rob G. Berkhof,
Eric W. Gerritsen, Han Kruyswijk

Generally, the sooner the - earliest - symptoms are recognised, the sooner ailments and illnesses can be diagnosed and treated, and the better the prognosis: 'a matter of time'.

Symptomatrix®

Time-saving is of utmost importance in particular for the difficult to recognise and to diagnose rare diseases Giant Cell Arteritis (GCA) and Polymyalgia Rheumatica (PMR), because of the many risks resulting from late recognition, consequently late diagnosis and delayed treatment. Practice shows that substantial time-saving - weeks and even months - can be achieved by using the Symptomatrix, an effective tool for patients and medical professionals, published on the internet in the four major languages. This book is about these issues and meant and accessible for everyone.

The Symptomatrix can be found on:

English: www.symptomatrix-eng.eu German: www.symptomatrix-de.eu
French: www.symptomatrix-fr.eu Spanish: www.symptomatrix-es.eu
Dutch: www.symptomatrix.eu

'a matter of time' is available free of charge.

Anniversary edition, 12½ years Symptomatrix
2016 Marijke Foundation