

# Collecting clinical experience of homeopathic treatment of COVID-19

First feedback issue

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## Introduction

It has been one month of collaboration between the various groups of professionals affiliated with the CCRH from India, the American Institute of Homeopathy of the USA, Vitoulkas Compass & Zeus-Opus software companies, who have been collecting data of patients treated with symptoms of what can be COVID-19, many which have been confirmed positive by diagnostic testing. The project has as its goal the identification of the medicines that have appeared more often to treat particular sets of symptoms and the rate of success, confirming the degree to which improvement corresponds to those particular sets of symptoms; this leads to the second goal, to determine whether those findings correspond to one of the traditional tools of homeopathic practice, the homeopathic repertory of the materia medica.

## Do we want to confirm or improve the repertory?

At the moment data about COVID-19 treatment come in different formats. These data must be evaluated in qualitative and quantitative respect. For this purpose, we must edit each case to make a comparison of cases possible, without losing information if possible. Next figure shows how this looks like in a spreadsheet

	A	B	C	D	E	F	G
1	Medicine	Symptom 1	Symptom 2	Symptom 3	symptom 4	symptom 5	symptom 6
	gels	prostration	heaviness eyelids	no thirst	no myalgia, or perspiration	Headache as 'being tied by a band around the head'	Cough aggravated the headache
16	gels	prostration	heaviness eyelids	Increased thirst	No fever but prominent chilliness	chilliness mainly felt over the back first, then to the extremities.	Generally ameliorated from perspiration and warmth
17	gels	prostration	chill	Low appetite with no thirst	chilliness mainly felt over the back	Cough associated with tickling at the throat	Sneezing with moderate amount of burning discharge
18	gels	prostration	heaviness eyelids	No thirst during chills	No fever but much chilliness, felt that the chilliness ran up and down the spine	Progressively worsening headache from the L sided nape radiating to L eyebrow	Headache ameliorated after profuse urination
19	gels	prostration	heaviness eyelids	No thirst during chills	No fever but worsening chilliness with headache	Chilliness ran up and down of the spine	Generally aggravated by the cold and wet weather
20	gels	prostration	Involuntary urination during cough	pain from the nape of the neck radiating to the head	Cough was dry most of the time except on waking	headache as 'constricting with a band'	Constrictive tightness at the chest
21	gels	prostration	heaviness eyelids	Involuntary urination during cough	The cough was dry most of the time except on waking	Cough with pain in chest, tickling in chest	Dry cough aggravated at night
22	gels	prostration	heaviness eyelids	Involuntary urination during cough	The cough was dry most of the time	Cough with pain in chest, tickling in chest	Generally aggravated from wet and cold weather
23	gels	prostration	heaviness eyelids	Involuntary urination during cough	The cough was dry most of the time	Cough with pain in chest, tickling in chest	Generally aggravated from wet and cold weather
24	gels	chill	joint pain	no thirst			
25							

In this figure we see 9 cases responding well to *Gelsemium (Gels)*. Nearly all cases (8 out of 9) had the symptom 'prostration', also mentioned as 'extreme weakness' etcetera. The second most occurring symptom was 'heaviness of eyelids', in 6 out 9 cases. Next in line were 'no thirst', 'chilliness' and 'headache'.

The ordering of the symptoms was done manually and subjectively. Why was 'involuntary urination during cough' - with only 2 out of 9 occurrence - placed in the second and third column? Because this symptom was not seen in other medicines so far. We cannot just count symptoms, we must add 'homeopathic quality', in this case peculiarity of the symptom.

At first glance we see that 'prostration' is the mostly occurring symptom indicating *Gelsemium*, but it should be noticed that the same symptom also occurred in 7 out of 8 cases responding well to *Camphora*.

### Confirmation bias

Does this mean that *Gels* or *Camph* can only be prescribed if there is prostration? No, because there is reluctance in prescribing these medicines if prostration is not present. This phenomenon is called confirmation bias, our observations are influenced by what we already know. If we would check the symptom prostration in every patient we would probably see that *Gels* and *Camph* don't work in every patient and that prostration could also indicate other medicines.

We must realise that the homeopathic methodology has several elements of confirmation bias. Another element is repertorisation. In the cases we saw so far we noticed very neat repertorisations: the selected medicine was in the first position. This looks better when we present cases, but does this really represent all our considerations leading to the choice of the medicine? Our consensus that a homeopathic medicine should fit the totality of the patient covers more than just a limited number of symptoms that confirm our choice. And didn't you sometimes notice that the medicine you prescribed was not in the symptom rubric you originally consulted, but present in another synonymous rubric, so you had to choose that rubric?

Then there are many mistakes in the repertory. The medicines *Ars* and *Phos* are both in bold type in the repertory-rubric 'fear of death'. After checking this symptom in thousands of patients we know that this is not right: 6 out of 27 (22.2%) of the *Arsenicum* patients and 4 out of 76 (5.3%) of *Phosphorus* patients have had fear of death.

### Adding extra value to the repertory

Of course, the inventory we made so far is not useless: we shared the experience of different groups of practitioners and we now have an inventory of symptoms that occur in COVID-19 patients. However, we can add extra value to our data collection if we build up our knowledge by improving the process of data gathering after learning from each consecutive chunk of information.

From the information we have, thus far, we can learn that we have to check some symptoms in every new patient, like:

- Prostration/ weakness; where is the weakness seated
- Fever, chill, or chill alternating with fever
- Thirst
- Pain; where

## PFR validated symptoms for medicines eligible in COVID-19 cases and symptoms seen in well-responding serious cases

Individual symptoms seen in COVID-19 cases:

Observed by homeopathic practitioners:

- Rhinitis with loss of smell and taste
- Rhinitis with headache
- Muscle pain lower back, posterior thighs
- Feeling of instability in legs
- Weakness, < evening
- Dry, painful cough
- Fever with vomiting and diarrhoea

Other symptoms – indicated by WHO - are fever, sputum production, shortness of breath, arthralgia, chills, hemoptysis, conjunctival congestion.

Most dangerous is double-sided pneumonia, please look for and report individual homeopathic symptoms.

### Homeopathic medicines

Here we give you concise information from prognostic factor research (PFR) that is not yet in the homeopathic repertories for medicines that were used for COVID-19 so far. Also symptoms that were observed in more serious (not self-limiting) cases responding well to homeopathy.

#### Antimonium tartaricum

Symptoms in cured serious cases

#### Arsenicum album

Validated symptoms:

Conscientious about trifles; fear of death/that something will happen; anxiety in heart-region; restlessness; hurry; sleepless from thoughts; sensitive to light; pain cervical region; thirst

Cough is mostly moist

Cough ameliorates: in warm room; from warm food or drinks

Cough aggravates: from swallowing; cold drinks

Symptoms in cured serious cases

## Bryonia

Validated symptoms

Cough is mostly dry

Cough ameliorates: in daytime; in dry weather; from cold food or drinks

Cough aggravates: in open air; from drinking;

Symptoms in cured serious cases

## Camphora

Symptoms in cured serious cases

Dry cough (4/9)

Weakness/prostration (7/9)

Perspiration (3/9), cold (2/9)

Headache temporal (2/9), frontal (1/9)

Collapse/fainting/dizzy (1/9)

Bitter taste (2/9)

## Eupatorium perfoliatum

Symptoms in cured serious cases

## Ferrum phosphoricum

Symptoms in cured serious cases

## Gelsemium

Validated symptoms

Anxiety about future; persistent thoughts; emotional excitement; trembling internally; anxiety in stomach; diarrhoea from anticipation;

Symptoms in cured serious cases

## Phosphorus

Validated symptoms

Sympathetic; desire for company; anxiety; fear something will happen/impending disease; moaning; thirst for large quantities;

Cough is mostly moist

Cough ameliorates: at night; from rest; from drinking

Cough aggravates: on waking; in cold weather; from exertion

Symptoms in cured serious cases

### Useful resources

This document is just one of the initiatives to inform homeopathic practitioners about COVID-19. It is

For this document we collect recent and still upcoming information from experience with COVID-19 patients and symptoms validated in various prognostic factor research projects, see 'Sources'.

Previously existing homeopathic information can be found at:

<https://www.doctorbhatia.com/treatment/coronavirus-covid-19-symptoms-homeopathic-remedies-for-treatment-and-prophylaxis/?fbclid=IwAR0pD6SsxsbdD0oqOfmsqOyYq34IP3dWDGSukWlhP81tL8jjZhrjASDFv8E&v=796834e7a283>[https://www.homeopathy360.com/2020/03/16/views-of-prof-george-vithoukas-on-homeopathy-for-coronavirus-covid-19-infection/?utm\\_source=Homeopathy&utm\\_campaign=cb4cb2f905-EMAIL\\_CAMPAIGN\\_2020\\_03\\_16\\_06\\_29&utm\\_medium=email&utm\\_term=0\\_cb77577afc-cb4cb2f905-232303259&mc\\_cid=cb4cb2f905&mc\\_eid=d598fea3ae](https://www.homeopathy360.com/2020/03/16/views-of-prof-george-vithoukas-on-homeopathy-for-coronavirus-covid-19-infection/?utm_source=Homeopathy&utm_campaign=cb4cb2f905-EMAIL_CAMPAIGN_2020_03_16_06_29&utm_medium=email&utm_term=0_cb77577afc-cb4cb2f905-232303259&mc_cid=cb4cb2f905&mc_eid=d598fea3ae)

### Sources:

Van Wassenhoven, M: Clinical verification of homeopathic symptoms. ISBN: 978-2-87491-003-6

Rutten, L: Prognostic factor research in homeopathy. ISBN: 978-93-81458-58-7

CCRH: prognostic factor research on homeopathic symptoms of cough. Data from pilot study.

# Collecting clinical experience of homeopathic treatment of COVID-19

## Adding expert knowledge to the repertory

Derived from the first 54 collected COVID-19 cases for the database, we showed preliminary information about the four most prescribed medicines: symptoms that are most frequently seen in these cases and symptoms that discriminate between the four medicines. These symptoms are not peculiar symptoms, precisely because they are the most frequently occurring symptoms. Nevertheless, it is possible to see in what respects the medicines differ. The prescribing doctors did more than use just these symptoms, they observed the totality of patient with their experience of many years of homeopathic practice. This can be shown by comparing the symptoms we collected with the standard repertorisation of those symptoms. we use standard repertorisation to show how an expert reads such a repertorisation.

*Arsenicum album*: anxiety or fear (of death); restlessness; thirst (for small sips); respiratory + gastro-intestinal symptoms; chilliness; moist cough.

Repertorisation:

The screenshot shows a software interface for homeopathic repertory. On the left, a list of symptoms is displayed under the heading 'Klembord 1':

- 1. MIND - ANXIETY (494) 1
- 2. MIND - RESTLESSNESS (554) 1
- 3. STOMACH - THIRST (326) 1
- 4. STOMACH - NAUSEA (465) 1
- 5. CHILL - CHILL in general (229) 1
- 6. COUGH - LOOSE (194) 1

On the right, a grid shows the repertorisation for these symptoms across 28 medicines. The medicines listed at the top are: acon., agar., agn., alum., am-c., am-m., anac., ang., ant-c., ant-t., apis., arm., ars-i., ars., aur., bar-c., bell., bism., box., bov., brom., bry., calad., calc., canth-s, ca. The grid shows the grade of each medicine for each symptom, with '1' indicating a grade 1 match. For example, for 'MIND - ANXIETY', the grades are: acon. 3, agar. 1, agn. 1, alum. 2, am-c. 2, am-m. 1, anac. 2, ang. 1, ant-c. 2, ant-t. 2, apis. 1, arm. 2, ars-i. 3, ars. 4, aur. 3, bar-c. 2, bell. 3, bism. 3, box. 2, bov. 3, brom. 1, bry. 3, calad. 1, calc. 3, canth-s 1, ca. 2.

The repertorisation places *Arsenicum* at the 14<sup>th</sup> position, but an experienced homeopath looking at those symptoms will immediately think of *Arsenicum*. For him/her an interesting aspect of this repertorisation will be the appearance of, e.g., *Antimonium tartaricum*, and the attention will intuitively go to how the patients coughs and the sound of his respiration. Similar consideration will pop up for several other medicines in this respiration.

In this standard repertorisation the grade of the medicine is not considered. Repertorisation with weighing of grades will push *Arsenicum* forward, especially because 'anxiety' is in fourth grade (fat underlined). On the other hand, using this weighing *Ammonium carbonicum* (*am-c*) would disappear. *Am-c* is much less used than *Arsenicum* and the expert would consider this medicine because one of the characteristics of this medicine – under-oxygenation – is also a characteristic of COVID-19.

*Bryonia* is also present in this repertorisation, but in that case the experienced homeopath will immediately notice if the patient has an aggravation from motion. Our data collection shows a less well-known aspect of *Bryonia*: the slow onset of symptoms. Now, let's compare our inventory of *Bryonia* symptoms with the repertorisation.

What would happen if an experienced homeopath presented this case after success with *Ars*? For educational reasons he would use weighing of grades, maybe add another *Ars* symptom he observed, to get *Ars* in the first position. However, would someone with minimal knowledge of homeopathy be able to do the same?

Let's consider the other medicines.

*Bryonia*: slow onset of symptoms; aggravation from motion; pain in joints/back/chest (aggravated by motion/cough); thirst; dry cough.

Repertorisation:

The screenshot shows a software interface with a list of symptoms on the left and a grid of medicines on the right. The symptoms listed are:

1. GENERALS - DEVELOPMENT - slow (17) 1
2. GENERALS - MOTION - agg. (277) 1
3. EXTREMITIES - PAIN - Joints - motion - agg. (39) 1
4. STOMACH - THIRST (326) 1
5. COUGH - DRY (343) 1

The grid lists 26 medicines with their grades for each symptom:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
2	-	1	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	1	-	
1	2	2	3	3	2	1	1	3	1	3	3	2	1	2	1	1	3	1	2	2	2	1	3	1	1	2	
2	2	-	1	3	1	-	2	1	1	2	3	1	-	1	1	1	2	2	2	-	2	3	1	-	2		
3	2	2	2	3	3	3	3	3	2	2	2	2	2	1	2	1	1	2	2	1	1	2	1	1	2	1	
3	2	2	3	3	2	2	2	3	2	1	1	2	2	1	2	2	2	3	2	1	1	1	2	1	3		

The repertorisation places *Bryonia* at the 3<sup>rd</sup> position despite the fact that *Bry* is not in the rubric 'slow development of disease', but the experienced homeopath will recognise the medicine from the other symptoms. However, with the presence of *Cuprum* in this repertorisation he might notice a purple discoloration of the face of the patient when he coughs. The case collection in this COVID-19 epidemic tells us that we should add *Bryonia* to the repertory-rubric 'Slow development'.

*Camphora*: weakness/tiredness/prostration; cold perspiration; chattering teeth during chill; bad taste in mouth.

Repertorisation:

The screenshot shows a software interface with a list of symptoms on the left and a grid of medicines on the right. The symptoms listed are:

1. GENERALS - WEAKNESS (710) 1
2. GENERALS - WEAKNESS - fever - during - t. (90) 1
3. PERSPIRATION - COLD (215) 1
4. TEETH - CHATTERING (44) 1
5. TEETH - CHATTERING - chill - with (30) 1
6. MOUTH - TASTE - bad (142) 1

The grid lists 26 medicines with their grades for each symptom:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
3	3	2	3	2	1	3	2	3	2	3	3	3	1	2	1	1	3	2	3	3	2	3	1	2	2		
3	1	1	2	2	1	2	3	3	1	2	1	1	2	-	1	2	1	1	1	1	2	2	1	1	-		
3	2	3	3	2	1	1	2	2	1	1	2	1	1	2	1	3	1	3	2	2	2	1	2	2	1		
1	1	1	1	1	1	2	1	1	1	1	1	1	1	-	1	1	1	1	1	1	-	1	1	-	2		
1	1	1	1	1	2	1	1	1	1	1	1	-	-	1	1	1	-	1	3	-	1	-	-	1	1		
2	3	1	1	1	1	1	3	1	1	1	3	1	1	2	1	-	2	-	-	3	3	1	1	1	1		

The repertorisation places *Camphora* at the third position. With these symptoms *Arsenicum album* would also be eligible, but we know that *Camphora* worked.

*Gelsemium*: weakness/tiredness/prostration; heaviness of eyelids; chilliness; headache; chest pain from cough; involuntary urination from cough; anxiety

Repertorisation:

	apis	bell.	nat-m.	nux-v.	acon.	alum.	ars.	calc.	caust.	ferr-p.	ferr.	Gels.	lyc.	mit-ac.	phos.	sep.	spong.	sulph.	thuj.	verat.	bar-c.	bry.	carb-v.	chin.	cocc.	dr.
1. GENERALS - WEAKNESS (710) 1	3	1	3	2	2	2	3	3	2	2	1	3	2	3	3	3	2	3	2	3	3	2	1	3	2	2
2. GENERALS - WEAKNESS - fever - during - c. (90) 1	2	1	2	3	1	1	3	1	1	2	1	2	1	1	3	1	1	1	1	3	1	2	1	2	1	1
3. EYE - HEAVINESS - Lids (112) 1	1	1	2	2	1	1	-	2	3	1	2	3	2	1	2	2	2	2	1	1	1	-	1	-	2	-
4. CHILL - CHILL in general (229) 1	3	2	3	3	1	2	3	2	1	-	2	3	3	3	2	3	1	1	3	3	1	2	3	3	1	1
5. HEAD - PAIN - accompanied by - fever (17) 1	1	2	1	1	1	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
6. CHEST - PAIN - cough - agg. (89) 1	3	2	2	2	1	1	1	2	2	1	2	2	1	2	3	1	3	2	1	1	1	3	3	1	1	3
7. BLADDER - URINATION - involuntary - cough... (63) 1	3	2	4	3	-	2	1	2	4	2	1	1	2	1	3	3	2	1	2	2	-	2	-	-	-	1
8. MIND - ANXIETY (494) 1	1	3	2	2	3	2	4	3	3	1	2	2	3	3	3	2	2	3	2	3	2	3	3	3	2	2

The medicine *Gelsemium* is at the 12<sup>th</sup> position. The rubric ‘Head pain accompanied by fever’ does not contain *Gels*. An experienced homeopath might also choose *Causticum* (position 9) because of involuntary urination caused by cough, or *Nux vomica* because of the totality of symptoms. However, a homeopathic practitioner has many other considerations in each case that cannot be expressed in symptom rubrics.

## Discussion

Our data collection show that a majority of COVID-19 cases responds well to a limited number of homeopathic medicines. We must realise that in this pandemic many healthcare workers and patients will become desperate and therefore willing to try homeopathy. We could accommodate those people by providing optimal data about the medicines that experts prescribe most frequently. Handing over the repertory and materia medica to these healthcare workers is no option, they don’t have the knowledge to use these instruments properly.

On the other hand, collecting this experience the knowledge of experts also grows. It seems interesting to have more *Antimonium tartaricum*, *Nux vomica* and *Causticum* cases, and maybe a rarely prescribed medicine like *Cuprum* might be interesting. *Bryonia* should be added to the repertory-rubric ‘GENERALS – DEVELOPMENT – slow’.

We chose standard repertorisation of symptoms and different analyses are possible, but that does not make an essential difference. Several other medicines could also be considered and, in fact, many homeopathic medicines are already proposed for this COVID-19 illness. We await new cases with other medicines with good effects. This way we can increase our knowledge about medicines that had good effects in actual COVID-19 cases. Experience is the cornerstone of homeopathy.

The symptom ‘loss of smell and/or taste’ appears frequently in COVID-19 cases. This is reason enough to check this symptom in every patient.

With this newsletter we hope to induce a quality circle in our collection of data. Keep sending us cases and we can provide you with the knowledge of your colleagues.

#### Reiterating requisites for case descriptions

Minimal data necessary:

- Severity of COVID-19 illness: Mild – Moderate – Severe – critical
- Is COVID-19 confirmed?
- Medicine, with date of first intake
- Number of hours until onset of improvement and/or until absence of fever
- If possible 3-5 symptoms that were characteristic for the case

Also check:

- Slow or fast onset of complaints
- Prostration/weakness; where is the weakness seated
- Fever, chill, or chill alternating with fever
- Thirst
- Pain; where
- Cough dry or moist
- Loss of smell or taste

## Collecting clinical experience of homeopathic treatment of COVID-19

### Improving the repertory by counting

In Kent's repertory medicine entries are in bold print when a symptom has repeatedly been confirmed in clinical use. We will show here that further refinement is possible to distinguish between medicines that are all been repeatedly confirmed, but the same method also repairs a serious shortcoming of the repertory: entries based on absolute occurrence instead of prevalence.

The frequency of use of homeopathic medicines varies widely. A small group of medicines – the so called polychrests – are responsible for half of our successful prescriptions. Intuitively we understand that it makes a difference if a symptom occurs in three out of 10 cases or in three out of hundred cases. However, if one medicine is used 10 times more frequently than the other both medicines will be recorded in bold type in the respective symptom-rubric. Both medicines have absolute occurrence of three, but the prevalence of the symptom is 3% in the frequently used medicine and 30% in the infrequently used medicines. Every homeopathic practitioner indeed has the experience that the repertory is less reliable concerning polychrests, especially in larger symptom rubrics.

*Table 1: counting and frequencies (in brackets) of some symptoms seen in successful COVID-19 cases, in the whole population and in populations responding well to four medicines. The column 'medicines (n)' shows the number of medicine-populations that showed the symptom.*

	total n=69	medici nes (n)	ars (n=8)	bry (n=20)	camph (n=10)	gels (n=11)
<b>prostration</b>	45 (65%)	14	4 (50%)	10 (50%)	7 (70%)	10 (91%)
<b>dry cough</b>	30 (43%)	10	3 (38%)	11 (55%)	6 (60%)	5 (45%)
<b>slow onset</b>	16 (23%)	7	1 (13%)	8 (40%)	2 (20%)	1 (9%)
<b>diarrhoea</b>	17 (25%)	7	3 (38%)	7 (35%)	2 (20%)	
<b>loss of taste and/or smell</b>	10 (14%)	6		2 (10%)	3 (30%)	
<b>chill back</b>	7 (10%)	2		2 (10%)		5 (45%)
<b>heaviness of eyelids</b>	6 (9%)	1				6 (55%)
<b>restless (night)</b>	5 (7%)	1	5 (63%)			
<b>taste bitter</b>	3 (4%)	1			3 (30%)	
<b>thirst for large quantities</b>	4 (6%)	2		3 (15%)		
<b>Involuntary urination during cough</b>	3 (4%)	1				3 (27%)
<b>chest pain &lt; cough</b>	2 (3%)	2		1 (5%)		1 (9%)
<b>epistaxis with fever</b>	2 (3%)	1		2 (10%)		
<b>chattering teeth</b>	2 (3%)	1			2 (20%)	

This table is, in fact, a mini-repertory of symptoms seen in COVID-19 cases regarding the four most frequently used medicines. It is just a reflection of 69 cases we collected so far that were treated with 17 medicines. When we collect more cases these numbers will change. The most frequently

occurring symptom in these cases is 'prostration' (weakness, etcetera) that occurs in 65% of all cases. This symptom was seen in 14 out of 17 medicines. This is comparable to the homeopathic repertory: the rubric 'Weakness' contains most homeopathic medicines. More peculiar symptom-rubrics, like 'epistaxis with fever' contain less medicines.

In the beginning of this data collection one group of practitioners prescribed *Camphora* in all cases with 'prostration/weakness', another group prescribed *Gelsemium* in all cases with 'prostration/weakness'. After collecting some cases we see confirmation of a general rule in homeopathy: common symptoms are no good indicators for the choice of the medicine, we need more peculiar symptoms. 'Heaviness of eyelids' and 'involuntary urination during cough' confirm *Gelsemium*, 'bitter taste' and 'chattering teeth' *Camphora*.

Prostration would occur in bold type in this mini-repertory for COVID-19 for all four medicines, but look at the frequencies. In the whole population we have seen so far the prevalence of prostration is 65%, in the populations responding well to *Arsenicum* and *Bryonia* the prevalence is 50% and in the *Camphora* and *Gelsemium* populations 70% and 91% respectively. So, the prevalence of this symptom compared to the whole population is lower in *Arsenicum* and *Bryonia* and higher in *Camphora* and *Gelsemium*. Could this have a meaning?

### Learning from experience

Contemplate on what experience learns us. We see accelerated respiration in many pneumonia cases. To be more precise: we see this symptom more frequently in cases with pneumonia than in other diagnoses. Likewise we see 'aggravation from motion' more frequently in cases responding well to *Bryonia* than in cases responding well to other medicines. Therefore, the first medicine we think of when the patient has 'aggravation from motion' is *Bryonia*.

This principle of learning from experience can be represented by a mathematical formula (Bayes theorem):

Posterior odds = likelihood ratio (LR) x prior odds

odds = chance / (1-chance); chance = odds / (1+odds)

LR = (prevalence in medicine population) / (prevalence in remainder of the population)

The 'remainder of the population' is the whole population minus the medicine population. The use of 'odds' is a bit awkward if we are normally use 'chance', but LR precisely represents what we intuitively feel: the comparison between medicine population and populations responding well to other medicines. We work this out for the data we collected regarding prostration and *Bryonia* (see data in Table 1):

	<i>Bryonia</i>	Remainder	total
prostration present	10	35	45
prostration absent	10	14	24
total	20	49	69

From this so-called 2x2 table we can calculate  $LR = (10/20) / (35/49) = 0.70$  (95% CI: 0.44 to 1.12). the 95% confidence interval (CI) shows that we cannot be certain that  $LR < 1$ , but there is a fair chance. This LR value  $< 1$  indicates that the chance *Bryonia* will work lowers if prostration is present, but not much. The proper calculations show that a prior chance (before we know the symptom) is, say, 30% the posterior chance (knowing that the patient has the symptom) becomes 23%.

With LR we have the opportunity to apply a solid scientific principle – Bayes theorem is applied in many computer programs – in the repertory. Filling in LRs for three symptoms that are seen in all four medicine populations

	LR arsenicum	LR bryonia	LR camphora	LR gelsemium
<b>prostration</b>	0.74	0.70	1.09	1.51
<b>dry cough</b>	0.85	1.42	1.48	1.05
<b>slow onset</b>	0.51	2.45	0.84	0.35

MIND: this mini-repertory is for COVID-19 cases only, the information is based on cases that responded well to these medicines. If we would prescribe one of these four medicines at random in COVID-19 cases we would see a better result than when we would prescribe any homeopathic medicine at random. Let us assume that we have an average success rate of 30% if we prescribe one of these four medicines, knowing that the patient has COVID-1 disease, not knowing anything else. If our second information would be that there is considerable prostration, chances for each medicine change a bit: *Camphora* and *Gelsemium* become more likely and *Arsenicum* and *Bryonia* less likely. The range, however, is still small, from 24% to 39%, see next table.

<b>prior 30%</b>	LR arsenicum	LR bryonia	LR camphora	LR gelsemium
<b>prostration</b>	24%	23%	32%	39%

Now, suppose that our second information would be slow onset of the disease. In that case the posterior chance that different medicines work varies stronger, from 13% to 51%.

<b>prior 30%</b>	LR arsenicum	LR bryonia	LR camphora	LR gelsemium
<b>slow onset</b>	18%	51%	26%	13%

This is all compliant with homeopathic practice experience: a more peculiar symptom has greater influence on the chance that a specific medicine works. It is also possible to combine symptoms. in that case LRs must be multiplied.

<b>prior 30%</b>	LR arsenicum	LR bryonia	LR camphora	LR gelsemium
<b>combined LR</b>	0.32	2.44	1.36	0.55
<b>prostration + dry cough + slow onset</b>	12%	51%	37%	19%

Our example shows that we can differentiate pretty well between medicines with a few not very relatively common symptoms. Of course with peculiar symptoms, like ‘epistaxis with fever’ the posterior chance of *Bryonia* rises faster because LR of such symptoms is higher.

## Discussion

With LR we can better differentiate between medicines, because a LR differentiates better than the existing repertory qualification based on type, but also because LR<1 offers the opportunity to lower the posterior chance.

# Collecting clinical experience of homeopathic treatment of COVID-19

## Adding expert knowledge to the repertory

Derived from the first 54 collected COVID-19 cases for the database, we showed preliminary information about the four most prescribed medicines: symptoms that are most frequently seen in these cases and symptoms that discriminate between the four medicines. These symptoms are not peculiar symptoms, precisely because they are the most frequently occurring symptoms. Nevertheless, it is possible to see in what respects the medicines differ. The prescribing doctors did more than use just these symptoms, they observed the totality of patient with their experience of many years of homeopathic practice. This can be shown by comparing the symptoms we collected with the standard repertorisation of those symptoms. we use standard repertorisation to show how an expert reads such a repertorisation.

*Arsenicum album*: anxiety or fear (of death); restlessness; thirst (for small sips); respiratory + gastro-intestinal symptoms; chilliness; moist cough.

Repertorisation:

The screenshot shows a software interface for homeopathic repertory. On the left, a list of symptoms is displayed under the heading 'Klembord 1':

- 1. MIND - ANXIETY (494) 1
- 2. MIND - RESTLESSNESS (554) 1
- 3. STOMACH - THIRST (326) 1
- 4. STOMACH - NAUSEA (465) 1
- 5. CHILL - CHILL in general (229) 1
- 6. COUGH - LOOSE (194) 1

On the right, a grid shows the repertorisation for these symptoms across 28 medicines. The medicines listed at the top are: acon., agar., agn., alum., am-c., am-m., anac., ang., ant-c., ant-t., apis., arm., ars-l., ars., aur., bar-c., bell., bism., box., bov., brom., bry., calad., calc., canth-s, ca.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
acon.	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
agar.																										
agn.																										
alum.																										
am-c.																										
am-m.																										
anac.																										
ang.																										
ant-c.																										
ant-t.																										
apis.																										
arm.																										
ars-l.																										
ars.																										
aur.																										
bar-c.																										
bell.																										
bism.																										
box.																										
bov.																										
brom.																										
bry.																										
calad.																										
calc.																										
canth-s																										
ca																										

The repertorisation places *Arsenicum* at the 14<sup>th</sup> position, but an experienced homeopath looking at those symptoms will immediately think of *Arsenicum*. For him/her an interesting aspect of this repertorisation will be the appearance of, e.g., *Antimonium tartaricum*, and the attention will intuitively go to how the patients coughs and the sound of his respiration. Similar consideration will pop up for several other medicines in this respiration.

In this standard repertorisation the grade of the medicine is not considered. Repertorisation with weighing of grades will push *Arsenicum* forward, especially because 'anxiety' is in fourth grade (fat underlined). On the other hand, using this weighing *Ammonium carbonicum* (*am-c*) would disappear. *Am-c* is much less used than *Arsenicum* and the expert would consider this medicine because one of the characteristics of this medicine – under-oxygenation – is also a characteristic of COVID-19.

*Bryonia* is also present in this repertorisation, but in that case the experienced homeopath will immediately notice if the patient has an aggravation from motion. Our data collection shows a less well-known aspect of *Bryonia*: the slow onset of symptoms. Now, let's compare our inventory of *Bryonia* symptoms with the repertorisation.

What would happen if an experienced homeopath presented this case after success with *Ars*? For educational reasons he would use weighing of grades, maybe add another *Ars* symptom he observed, to get *Ars* in the first position. However, would someone with minimal knowledge of homeopathy be able to do the same?

Let's consider the other medicines.

*Bryonia*: slow onset of symptoms; aggravation from motion; pain in joints/back/chest (aggravated by motion/cough); thirst; dry cough.

Repertorisation:

The screenshot shows a software window titled 'Volledige Synthesis' with a search magnifying glass icon and '100%' zoom. The user 'J. Sherr' is logged in. The interface includes a sidebar with numbered buttons 1-7 and a list of symptoms under 'Klembord 1':

- 1. GENERALS - DEVELOPMENT - slow (17) 1
- 2. GENERALS - MOTION - agg. (277) 1
- 3. EXTREMITIES - PAIN - Joints - motion - agg. (39) 1
- 4. STOMACH - THIRST (326) 1
- 5. COUGH - DRY (343) 1

The main area displays a grid of medicines (columns) and their grades for each symptom (rows). The medicines listed are: Calc., Arn., Bar-c., Bell., Bry., Caps., Caust., Cham., Chin., Cina, Cocc., Colch., Croc., Cupr., Cycl., Ferr-p., Form., Guai., Hyos., Kali-bl., Kreos., Lac-ac., Led., Lyc., Magn-m.

	Calc.	Arn.	Bar-c.	Bell.	Bry.	Caps.	Caust.	Cham.	Chin.	Cina	Cocc.	Colch.	Croc.	Cupr.	Cycl.	Ferr-p.	Form.	Guai.	Hyos.	Kali-bl.	Kreos.	Lac-ac.	Led.	Lyc.	Magn-m
5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
2	-	1	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	1	-
1	2	2	3	3	2	1	1	3	1	3	3	2	1	2	1	1	3	1	2	2	1	3	1	1	2
2	2	-	1	3	1	-	2	1	1	2	3	1	-	1	1	1	2	2	2	-	2	3	1	-	2
3	2	2	2	3	3	3	3	3	2	2	2	2	2	1	2	1	1	2	2	1	1	2	1	1	1
3	2	2	3	3	2	2	2	3	2	1	1	2	2	1	2	2	2	3	2	1	1	1	2	1	3

The repertorisation places *Bryonia* at the 3<sup>rd</sup> position despite the fact that *Bry* is not in the rubric 'slow development of disease', but the experienced homeopath will recognise the medicine from the other symptoms. However, with the presence of *Cuprum* in this repertorisation he might notice a purple discoloration of the face of the patient when he coughs. The case collection in this COVID-19 epidemic tells us that we should add *Bryonia* to the repertory-rubric 'Slow development'.

*Camphora*: weakness/tiredness/prostration; cold perspiration; chattering teeth during chill; bad taste in mouth.

Repertorisation:

The screenshot shows a software window titled 'Analyse op remedies' with a search magnifying glass icon and '100%' zoom. The user 'J. Sherr' is logged in. The interface includes a sidebar with numbered buttons 1-8 and a list of symptoms under 'Klembord 1':

- 1. GENERALS - WEAKNESS (710) 1
- 2. GENERALS - WEAKNESS - fever - during - t. (90) 1
- 3. PERSPIRATION - COLD (215) 1
- 4. TEETH - CHATTERING (44) 1
- 5. TEETH - CHATTERING - chill - with (30) 1
- 6. MOUTH - TASTE - bad (142) 1

The main area displays a grid of medicines (columns) and their grades for each symptom (rows). The medicines listed are: Ars., Calc., Camph., Chin., Ign., Kali-n., Nat-m., Nux-v., Phos., Sabad., Stann., Sulph., Bar-c., Bell., Bry., Caps., Carb-v., Gels., Ip., Lach., Merc., Puls., Rhus-t., Spig., Thuj., Zif.

	Ars.	Calc.	Camph.	Chin.	Ign.	Kali-n.	Nat-m.	Nux-v.	Phos.	Sabad.	Stann.	Sulph.	Bar-c.	Bell.	Bry.	Caps.	Carb-v.	Gels.	Ip.	Lach.	Merc.	Puls.	Rhus-t.	Spig.	Thuj.	Zif.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
0	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5
3	3	2	3	2	1	3	2	3	2	3	3	3	1	2	1	1	3	2	3	3	2	3	1	2	2	
3	1	1	2	2	1	2	3	3	1	2	1	1	1	2	-	1	2	1	1	1	1	2	2	1	-	
3	2	3	3	2	1	1	2	2	1	1	2	1	1	2	1	3	1	3	2	2	2	1	2	2	1	
1	1	1	1	1	1	2	1	1	1	1	1	1	1	-	1	1	1	1	1	1	-	1	1	-	2	
1	1	1	1	1	2	1	1	1	1	1	-	-	1	1	1	1	1	3	-	1	-	-	-	1	1	
2	3	1	1	1	1	3	1	1	1	3	1	1	2	1	-	2	-	-	3	3	1	1	1	1	1	

The repertorisation places *Camphora* at the third position. With these symptoms *Arsenicum album* would also be eligible, but we know that *Camphora* worked.

*Gelsemium*: weakness/tiredness/prostration; heaviness of eyelids; chilliness; headache; chest pain from cough; involuntary urination from cough; anxiety

Repertorisation:

	apls	bell.	nat-m.	nux-v.	acon.	alum.	ars.	calc.	caust.	ferr-p.	ferr.	gels.	lyc.	mit-ac.	phos.	sep.	spong.	sulph.	thuj.	verat.	bar-c.	bry.	carb-v.	chin.	cocc.	dr.
1. GENERALS - WEAKNESS (710) 1	3	1	3	2	2	2	3	3	2	2	1	3	2	3	3	3	2	3	2	3	3	2	1	3	2	2
2. GENERALS - WEAKNESS - fever - during - c. (90) 1	2	1	2	3	1	1	3	1	1	2	1	2	1	1	3	1	1	1	1	3	1	2	1	2	1	1
3. EYE - HEAVINESS - Lids (112) 1	1	1	2	2	1	1	-	2	3	1	2	3	2	1	2	2	2	2	1	1	1	-	1	-	2	-
4. CHILL - CHILL in general (229) 1	3	2	3	3	1	2	3	2	1	-	2	3	3	3	2	3	1	1	3	3	1	2	3	3	1	1
5. HEAD - PAIN - accompanied by - fever (17) 1	1	2	1	1	1	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
6. CHEST - PAIN - cough - agg. (89) 1	3	2	2	2	1	1	1	2	2	1	2	2	1	2	3	1	3	2	1	1	1	3	3	1	1	3
7. BLADDER - URINATION - involuntary - cough... (63) 1	3	2	4	3	-	2	1	2	4	2	1	1	2	1	3	3	2	1	2	2	-	2	-	-	-	1
8. MIND - ANXIETY (494) 1	1	3	2	2	3	2	4	3	3	1	2	2	3	3	3	2	2	3	2	3	2	3	3	3	2	2

The medicine *Gelsemium* is at the 12<sup>th</sup> position. The rubric ‘Head pain accompanied by fever’ does not contain *Gels*. An experienced homeopath might also choose *Causticum* (position 9) because of involuntary urination caused by cough, or *Nux vomica* because of the totality of symptoms. However, a homeopathic practitioner has many other considerations in each case that cannot be expressed in symptom rubrics.

## Discussion

Our data collection show that a majority of COVID-19 cases responds well to a limited number of homeopathic medicines. We must realise that in this pandemic many healthcare workers and patients will become desperate and therefore willing to try homeopathy. We could accommodate those people by providing optimal data about the medicines that experts prescribe most frequently. Handing over the repertory and materia medica to these healthcare workers is no option, they don’t have the knowledge to use these instruments properly.

On the other hand, collecting this experience the knowledge of experts also grows. It seems interesting to have more *Antimonium tartaricum*, *Nux vomica* and *Causticum* cases, and maybe a rarely prescribed medicine like *Cuprum* might be interesting. *Bryonia* should be added to the repertory-rubric ‘GENERALS – DEVELOPMENT – slow’.

We chose standard repertorisation of symptoms and different analyses are possible, but that does not make an essential difference. Several other medicines could also be considered and, in fact, many homeopathic medicines are already proposed for this COVID-19 illness. We await new cases with other medicines with good effects. This way we can increase our knowledge about medicines that had good effects in actual COVID-19 cases. Experience is the cornerstone of homeopathy.

The symptom ‘loss of smell and/or taste’ appears frequently in COVID-19 cases. This is reason enough to check this symptom in every patient.

With this newsletter we hope to induce a quality circle in our collection of data. Keep sending us cases and we can provide you with the knowledge of your colleagues.

#### Reiterating requisites for case descriptions

Minimal data necessary:

- Severity of COVID-19 illness: Mild – Moderate – Severe – critical
- Is COVID-19 confirmed?
- Medicine, with date of first intake
- Number of hours until onset of improvement and/or until absence of fever
- If possible 3-5 symptoms that were characteristic for the case

Also check:

- Slow or fast onset of complaints
- Prostration/weakness; where is the weakness seated
- Fever, chill, or chill alternating with fever
- Thirst
- Pain; where
- Cough dry or moist
- Loss of smell or taste

## Collecting clinical experience of homeopathic treatment of COVID-19

### Improving the repertory by counting

In Kent's repertory medicine entries are in bold print when a symptom has repeatedly been confirmed in clinical use. We will show here that further refinement is possible to distinguish between medicines that are all been repeatedly confirmed, but the same method also repairs a serious shortcoming of the repertory: entries based on absolute occurrence instead of prevalence.

The frequency of use of homeopathic medicines varies widely. A small group of medicines – the so called polychrests – are responsible for half of our successful prescriptions. Intuitively we understand that it makes a difference if a symptom occurs in three out of 10 cases or in three out of hundred cases. However, if one medicine is used 10 times more frequently than the other both medicines will be recorded in bold type in the respective symptom-rubric. Both medicines have absolute occurrence of three, but the prevalence of the symptom is 3% in the frequently used medicine and 30% in the infrequently used medicines. Every homeopathic practitioner indeed has the experience that the repertory is less reliable concerning polychrests, especially in larger symptom rubrics.

*Table 1: counting and frequencies (in brackets) of some symptoms seen in successful COVID-19 cases, in the whole population and in populations responding well to four medicines. The column 'medicines (n)' shows the number of medicine-populations that showed the symptom.*

	total n=69	medici nes (n)	ars (n=8)	bry (n=20)	camph (n=10)	gels (n=11)
<b>prostration</b>	45 (65%)	14	4 (50%)	10 (50%)	7 (70%)	10 (91%)
<b>dry cough</b>	30 (43%)	10	3 (38%)	11 (55%)	6 (60%)	5 (45%)
<b>slow onset</b>	16 (23%)	7	1 (13%)	8 (40%)	2 (20%)	1 (9%)
<b>diarrhoea</b>	17 (25%)	7	3 (38%)	7 (35%)	2 (20%)	
<b>loss of taste and/or smell</b>	10 (14%)	6		2 (10%)	3 (30%)	
<b>chill back</b>	7 (10%)	2		2 (10%)		5 (45%)
<b>heaviness of eyelids</b>	6 (9%)	1				6 (55%)
<b>restless (night)</b>	5 (7%)	1	5 (63%)			
<b>taste bitter</b>	3 (4%)	1			3 (30%)	
<b>thirst for large quantities</b>	4 (6%)	2		3 (15%)		
<b>Involuntary urination during cough</b>	3 (4%)	1				3 (27%)
<b>chest pain &lt; cough</b>	2 (3%)	2		1 (5%)		1 (9%)
<b>epistaxis with fever</b>	2 (3%)	1		2 (10%)		
<b>chattering teeth</b>	2 (3%)	1			2 (20%)	

This table is, in fact, a mini-repertory of symptoms seen in COVID-19 cases regarding the four most frequently used medicines. It is just a reflection of 69 cases we collected so far that were treated with 17 medicines. When we collect more cases these numbers will change. The most frequently

occurring symptom in these cases is ‘prostration’ (weakness, etcetera) that occurs in 65% of all cases. This symptom was seen in 14 out of 17 medicines. This is comparable to the homeopathic repertory: the rubric ‘Weakness’ contains most homeopathic medicines. More peculiar symptom-rubrics, like ‘epistaxis with fever’ contain less medicines.

In the beginning of this data collection one group of practitioners prescribed *Camphora* in all cases with ‘prostration/weakness’, another group prescribed *Gelsemium* in all cases with ‘prostration/weakness’. After collecting some cases we see confirmation of a general rule in homeopathy: common symptoms are no good indicators for the choice of the medicine, we need more peculiar symptoms. ‘Heaviness of eyelids’ and ‘involuntary urination during cough’ confirm *Gelsemium*, ‘bitter taste’ and ‘chattering teeth’ *Camphora*.

Prostration would occur in bold type in this mini-repertory for COVID-19 for all four medicines, but look at the frequencies. In the whole population we have seen so far the prevalence of prostration is 65%, in the populations responding well to *Arsenicum* and *Bryonia* the prevalence is 50% and in the *Camphora* and *Gelsemium* populations 70% and 91% respectively. So, the prevalence of this symptom compared to the whole population is lower in *Arsenicum* and *Bryonia* and higher in *Camphora* and *Gelsemium*. Could this have a meaning?

### Learning from experience

Contemplate on what experience learns us. We see accelerated respiration in many pneumonia cases. To be more precise: we see this symptom more frequently in cases with pneumonia than in other diagnoses. Likewise we see ‘aggravation from motion’ more frequently in cases responding well to *Bryonia* than in cases responding well to other medicines. Therefore, the first medicine we think of when the patient has ‘aggravation from motion’ is *Bryonia*.

This principle of learning from experience can be represented by a mathematical formula (Bayes theorem):

Posterior odds = likelihood ratio (LR) x prior odds

odds = chance / (1-chance); chance = odds / (1+odds)

LR = (prevalence in medicine population) / (prevalence in remainder of the population)

The ‘remainder of the population’ is the whole population minus the medicine population. The use of ‘odds’ is a bit awkward if we are normally use ‘chance’, but LR precisely represents what we intuitively feel: the comparison between medicine population and populations responding well to other medicines. We work this out for the data we collected regarding prostration and *Bryonia* (see data in Table 1):

	<i>Bryonia</i>	Remainder	total
prostration present	10	35	45
prostration absent	10	14	24
total	20	49	69

From this so-called 2x2 table we can calculate  $LR = (10/20) / (35/49) = 0.70$  (95% CI: 0.44 to 1.12). the 95% confidence interval (CI) shows that we cannot be certain that  $LR < 1$ , but there is a fair chance. This LR value  $< 1$  indicates that the chance *Bryonia* will work lowers if prostration is present, but not much. The proper calculations show that a prior chance (before we know the symptom) is, say, 30% the posterior chance (knowing that the patient has the symptom) becomes 23%.

With LR we have the opportunity to apply a solid scientific principle – Bayes theorem is applied in many computer programs – in the repertory. Filling in LRs for three symptoms that are seen in all four medicine populations

	LR arsenicum	LR bryonia	LR camphora	LR gelsemium
<b>prostration</b>	0.74	0.70	1.09	1.51
<b>dry cough</b>	0.85	1.42	1.48	1.05
<b>slow onset</b>	0.51	2.45	0.84	0.35

MIND: this mini-repertory is for COVID-19 cases only, the information is based on cases that responded well to these medicines. If we would prescribe one of these four medicines at random in COVID-19 cases we would see a better result than when we would prescribe any homeopathic medicine at random. Let us assume that we have an average success rate of 30% if we prescribe one of these four medicines, knowing that the patient has COVID-1 disease, not knowing anything else. If our second information would be that there is considerable prostration, chances for each medicine change a bit: *Camphora* and *Gelsemium* become more likely and *Arsenicum* and *Bryonia* less likely. The range, however, is still small, from 24% to 39%, see next table.

<b>prior 30%</b>	LR arsenicum	LR bryonia	LR camphora	LR gelsemium
<b>prostration</b>	24%	23%	32%	39%

Now, suppose that our second information would be slow onset of the disease. In that case the posterior chance that different medicines work varies stronger, from 13% to 51%.

<b>prior 30%</b>	LR arsenicum	LR bryonia	LR camphora	LR gelsemium
<b>slow onset</b>	18%	51%	26%	13%

This is all compliant with homeopathic practice experience: a more peculiar symptom has greater influence on the chance that a specific medicine works. It is also possible to combine symptoms. in that case LRs must be multiplied.

<b>prior 30%</b>	LR arsenicum	LR bryonia	LR camphora	LR gelsemium
<b>combined LR</b>	0.32	2.44	1.36	0.55
<b>prostration + dry cough + slow onset</b>	12%	51%	37%	19%

Our example shows that we can differentiate pretty well between medicines with a few not very relatively common symptoms. Of course with peculiar symptoms, like ‘epistaxis with fever’ the posterior chance of *Bryonia* rises faster because LR of such symptoms is higher.

## Discussion

With LR we can better differentiate between medicines, because a LR differentiates better than the existing repertory qualification based on type, but also because  $LR < 1$  offers the opportunity to lower the posterior chance.

We must be aware that the quality output of our research heavily depends on the quality of the input, the submitted cases. We must take special care of causality: is the improvement of the patient really caused by the prescribed medicine? There is much spontaneous recovery in acute cases, also in COVID-19. If you have prescribed more than one medicine you must be convinced that the case you submitted was really improved by the medicine you indicated. It is as yet not easy to find objective criteria for assessing causality. There are several typically homeopathic patterns like the start of improvement by improved wellbeing, but we cannot know if this is also the case with COVID-19 and in how many patients.

### Summary of requisites for case descriptions:

The minimal necessary data we already have:

- Severity of COVID-19 illness: Mild – Moderate – Severe – critical
- Is COVID-19 confirmed?
- Medicine, with date of first intake
- Number of hours until onset of improvement and/or until absence of fever
- If possible 3-5 symptoms that were characteristic for the case

Now, in addition, we need to always check for:

- Prostration/weakness; where is the weakness seated
- Loss of smell, and loss of taste
- Fever, chill, or chill alternating with fever
- Thirst
- Pain; where

### Action Points to Implement:

- With this information LMHI members may have greater clarity about how to prescribe in this epidemic and have guidelines on how to report cases to be included in the database.
- With more data, we will have a greater number of suitable medicines identified for use.
- With the VC and Clifical data we can be more certain about which are optimal symptoms.
- We can have to be careful to attribute a “cure” to the use of a medicine, what is called “causality assessment.” This is a serious problem in research, and it weakens rather than strengthens homeopathy!
- In some cases merely prescribing a medicine has been regarded as reason to send in the case, without any follow-up. This is not acceptable methodology; it wastes valuable time, and weakens the strength and reliability of the research.
- We still have not determined the parameters for qualifying an improvement to the use of a medicine. Concepts such as: ‘time until onset of improvement’ and ‘time until fever dropped’ are quite insufficient. Perhaps, the consideration of three days of progressive improvement, or three days of being symptom free would be a parameter, but that needs further research.