Collecting clinical experience of homeopathic support in COVID-19, newsletter 18

Bayesian analysis of symptoms, 17th issue

LMHI newsletter Christmas 2020

Within two weeks of the introduction of the third version of the mini-repertory and the new app (English https://hpra.co.uk/; Spanish https://hpra.co.uk/es) we received appreciative comments from users and we hope to get some more feedback from other users. Also, if you have any problems with the app, please report them (praktijk@dokterrutten.nl). The app is based on the experience of over 100 doctors worldwide and additional experience will help us to improve it further.

In this newsletter we will show you some examples combining just a few symptoms (2-4) that work successfully with the app. We could produce many other examples, but these particular ones clearly show the difference from the existing repertory.

Meanwhile the number of recorded cases in India is exploding. There are differences in the way these are recorded that prevent us from adding them to the existing LMHI database, but the Indian data can be used to corroborate and supplement the LMHI data. We are in discussion with over 150 Indian colleagues to further improve how the data are recorded.

User comments about the mini-repertory and app

We received some initial comments from Turkey and Georgia. The Turkish colleagues reported:

"… Many doctors use the mini repertory with success. Even those who do not have a possibility to reach a homeopathic doctor were able to treat their patients with it".

This confirms our expectation that the app can be an ambassador for homeopathy to conventional doctors. Our colleagues from Georgia reported:

"By using the proposed methodologies, pieces of advice and mini-repertories, we have managed to treat our COVID-patients in a most effective way".

We are very pleased that the mini-repertory and the app seem to do what they are supposed to: improve homeopathic treatment of COVID-19 and increase the number of patients that can be treated successfully. We hope that this news will also spread among conventional doctors to stimulate them to cooperate with homeopathic doctors in treating COVID-19 patients and selecting eligible patients using the app.

We also hope that homeopathic doctors realise that this mini-repertory and app are based on their own clinical experience. Do keep entering your cases on the existing platforms:

- Database of the American Institute of Homeopathy (AIH): login (https://homeopathyusa.org/covid-19/auth/login) or email (peter_gold@goldorluk.com) for login credentials.
- Vithoulkas Compass: https://www.vithoulkascompass.com/en/Homeopathy/LMHI2020

- Clificol: https://intranet.clificol.net/

Some examples of the application of the app

The third version of the app handles five homeopathic medicines: *Arsenicum album (Ars), Bryonia (Bry), Gelsemium (Gels), Phosphorus (phos)* and *Pulsatilla (Puls)*. These medicines were used in 71% of 522 cases. The app shows 25 common COVID-19 symptoms that could indicate one or more of these medicines, see Figure 1.

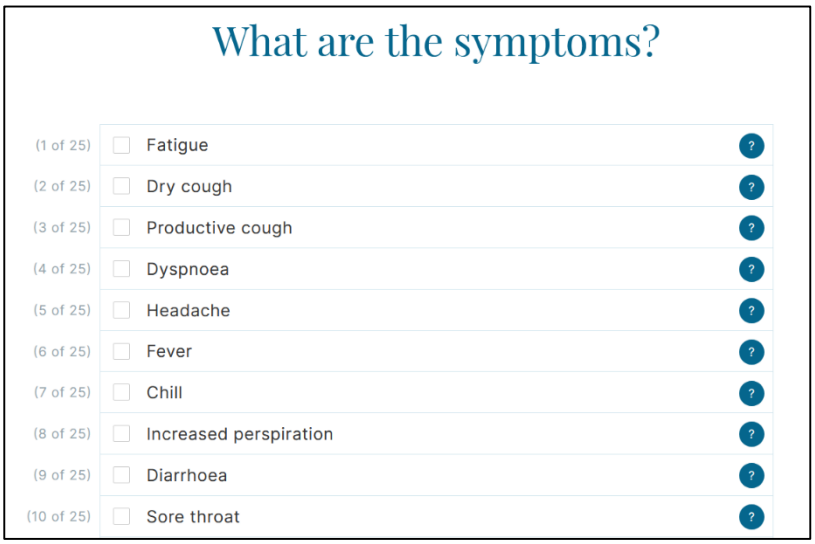

Figure 1: Third version of the homeopathic COVID-19 app: https://hpra.co.uk/

Most of the symptoms return no useful results with existing homeopathic repertories. Table 1 shows a few symptom combinations with two to four symptoms where the app produces a 'moderate' or 'strong' indication for one or two medicines.

Table 1 shows only a small number of all the symptom combinations that produce a useful result. You can try and see for yourself what result the existing repertory would give – you will find a confusing number of equally recommended medicines in addition to the medicine based on practical experience in this COVID-19 epidemic.

Table 1: Some symptom combinations and medicines indicated with 'moderate' or 'strong' advice using the COVID-19 app.

Advised medicine	Symptom 1	Symptom 2	Symptom 3	Symptom 4
Arsenicum	Fatigue	Diarrhoea	Thirst	Vomiting
Phosphorus	Fatigue	Diarrhoea	Thirst	Vomiting
Arsenicum	Nausea	Restless		
Arsenicum	Fatigue	Productive cough	Thirst	Nausea
Bryonia	Dry cough	Headache	>Lying	
Bryonia	Muscle/bone pain	Thirst	Back pain	
Bryonia	Sore throat	Chest pain <cough	Constipation	
Gelsemium	Fatigue	Perspiration	Thirstless	
Gelsemium	Fatigue	Headache	Chill	
Phosphorus	Dyspnoea	Fever	Chest discomfort	
Pulsatilla	Productive cough	Perspiration	Bitter taste	
Pulsatilla	Loss taste/smell	Abdominal pain	Restless	

Confirmatory symptoms

The advice of the app can be checked by looking for other symptoms that appeared in our data collection:

- *Arsenicum*: anxiety, sleeplessness; desire for warm drinks; fear of death
- *Bryonia:* thirst for large quantities; cough < talking; cough < deep inspiration; desire for rest; motion aggravates
- *Gelsemium*: involuntary urination from cough; heavy eyelids – cannot keep eyes open; chilly back; headache > profuse urination
- *Phosphorus*: gasping for air; fear of being alone; desire for cold drinks; blocked nose
- *Pulsatilla*: loss of appetite; wants to be held; bitter taste, weeping; blocked nose

In any case, the homeopathic practitioner must realise that our mini-repertory and the app can advise about only five medicines. If the patient shows keynote symptoms which point to another medicine this should be carefully explored further.

Comparison of LMHI and Indian data

The Ministry of AYUSH of the Government of India is strongly encouraging data collection in homeopathy and we had the opportunity to assess nearly 1900 cases collected by four doctors. After exclusion of cases without symptoms or where more than one medicine was successful, 1579 of these cases could be used for Bayesian analysis. The results of the Indian data collection will be published separately, but we were able to compare these data with the 522 cases underlying the LMHI mini-repertory and app.

In both data collections, the most prescribed medicines were *Ars, Bry*, *Puls* and *Gels*. The next most frequently prescribed medicines were *Phos, Camphora (Camph)* and *Nux vomica (Nux-v)* in the LMHI data base and *Belladonna (Bell), Phos* and *Hepar sulphuris (Hep)* in the Indian database. This indicates that there is a major consensus regarding the most eligible homeopathic medicines for COVID-19.

For some symptoms, such as ‘fatigue’, ‘dry cough’ and ‘headache’, the LR values of the LMHI and Indian collection were very similar. This provides strong validation of the different homeopathic medicines indicated by some common COVID-19 symptoms, corroborated by 2100 cases.

There are also some differences between the two data collections that need to be studied and could help to further improve the mini repertory and the app. Study of these differences will also help to improve future data collection.

Improvement of data collection

The differences between the LMHI database and the Indian database can mostly be explained by two factors: the number of contributing doctors and bias. The LMHI database was built from the experience of over a hundred doctors, whilst the Indian database derived from only four.

There are considerable differences of opinion between homeopathic doctors. At the start of the data collection in April 2020, one group of doctors prescribed *Camphora (Camph)* to most COVID-19 patients because of the fatigue, whilst another group prescribed *Gels* for the same reason. Eight months later *Camph* was prescribed to 3.1% of the COVID-19 patients and *Gels* to 10%. By November

2020, we knew that for 'fatigue' and *Gels* LR=2.02 in the LMHI database and LR=2.00 in the Indian database. For 'fatigue' and *Camph* LR=1.66 in the LMHI database. The LR could not be calculated for the Indian database because only 2 out of 1579 patients used *Camph*. Table 2 shows how the numbers of *Gels* prescriptions developed: the symptom 'fatigue' was more frequently noted in patients where other medicines were prescribed and less frequently in *Gels* patients.

Table 2: Gelsemium and the symptom 'fatigue' in April 2020 and November 2020 in the LMHI database.

fatigue	April 2020 (%)	November 2020 (%)
Gelsemium	10/11 (90.1%); LR=8.58	44/52 (80%); LR=2.02
Other medicines	9/86 (10.5%)	197/470 (41.9%)

Retrospectively we can reconstruct what probably happened. In April 2020 with this new disease, we had little to go on and doctors had to prescribe based on their own experience and knowledge, which varies widely. Over the following months, the experience of many more doctors was added and the symptom 'fatigue' checked in every new patient (prospectively). In fact, in April the symptom 'fatigue' was used by some doctors as a 'keynote' symptom for *Gels*, which is reflected in the high LR (=8.58). Gradually, as more symptoms were added as indications for medicines, the LR reduced (=2.02 in November).

Intuitively, it is easy to understand that a homeopathic medicine for COVID-19 cannot be prescribed based on one common symptom like 'fatigue'. By combining the knowledge and experience of many doctors we are able to expand the number of useful symptoms, and by applying the mini-repertory and the app we can then prescribe using a combination of common symptoms.

The same happened in the Indian case collection. One doctor had a strong preference for *Magnesium muriaticum (Mag-m)* if the symptom 'loss of taste and/or smell' was present. All *Mag-m* cases were from this doctor and nearly all patients had 'loss of taste and/or smell'.

Confirmation bias

The example above is caused by selection bias: one symptom is used as a keynote symptom and the medicine is selected based on this symptom. The other most prominent bias in homeopathic case collection is confirmation bias: symptoms that match the preferred medicine or disease are more easily recognised. This confirmation bias can be caused by the patient's willingness to please, thinking that the doctor wants to hear that he has all the COVID-19 symptoms. We have seen an example of this where all patients had the same four COVID-19 symptoms and we could not use these cases for Bayesian analysis.

On the other hand, confirmation bias could also result from the doctor wanting to demonstrate that more symptoms confirming the selected medicine could be elicited from the patient. This is done by lowering the threshold for a symptom to be considered. Most symptoms can have a variety of intensities: 'cough' could be present once a week or every minute.

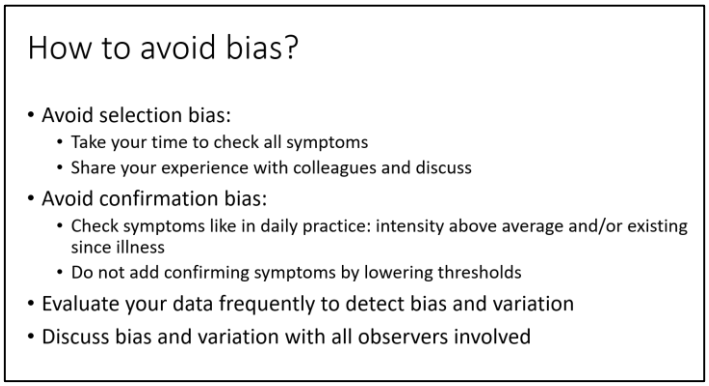

Figure 2: Avoiding bias in homeopathic case collection

Bias has also been discussed in previous newsletters. In Figure 2 some precautions to prevent bias are shown.

Future developments

The conclusion of all this should be: **one doctor might know a lot, but a hundred doctors know more**.

By combining the knowledge of many doctors and the outcome of different databases we can improve the validity of our symptoms and the effectiveness of homeopathy. Meanwhile, we should keep improving our data collection. In a recent webinar, 160 doctors from India were trained how to prevent bias. Imagine the effects of more than 100 Indian doctors contributing cases, when four Indian doctors have already contributed more than 1500 cases. On top of this, we hope that case collection and improvements in the quality of case collection in other programs will continue.

Acknowledgement

We would like to thank drs Moumita Chakraborty, Baljeet Singh Meena, Kavita Sharma and Anjali Miglani from India for sharing their cases.

The COVID-19 case collection team wishes you happy holidays and all the best for the year 2021!

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