



## Original Article

# Digging to the heart of things – An essay on patterns of diagnosis in traditional East Asian medicine: Comparing Chinese and Japanese systems

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## ABSTRACT

**Background:** Traditional East Asian Medical (TEAM) practice systems exhibit much variation. Little work has been done to study reasons for this variation. This essay explores cultural and historical explanations for how variety occurs by contrasting the use of two TEAM concepts in diagnosis in Chinese and Japanese systems.

**Methods:** Focussing on two important concepts, *xin* (heart) and *shen* (spirit), a literature review is performed to contrast how they developed, are understood and used in diagnosis in Chinese Traditional Chinese medicine, TCM, and Japanese Meridian Therapy, MT.

**Results:** While TCM texts describe many heart-related diagnoses, MT texts do not describe any. While TCM associates '*shen*' with the mind and emotions coupled with associated diagnoses, MT does neither. Historical and cultural reasons for these differences are identified.

**Conclusions:** In light of these findings, important questions arise about the nature of concepts and diagnoses in TEAM practice systems. They are not objective like biomedical constructs and diagnoses, nor are they clearly articulated and studied yet according to international standards. This suggests a range of research strategies that are needed. There are valid historical and cultural reasons for the differences we see between Japanese and Chinese TEAM systems. In light of these, further research is needed to elaborate and identify critical issues that are important for education, practice and research.

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## 1. Introduction

Traditional East Asian Medicine (TEAM) is a term that covers traditional medical systems from East Asia derived from early Chinese medical discourse. Over time many forms of practice have developed due to historical influences, needs and regional differences.<sup>1</sup> In Japan herbal medicine (Kampo) can only be practiced by medical doctors, thus acupuncture is largely practiced separately.<sup>1</sup> A common form of TEAM based acupuncture is 'Keiraku Chiryō,' Meridian Therapy (MT) which developed by the late 1930s.<sup>1,2</sup> In China today the current form of TEAM is called 'Zhongyi,' or 'traditional Chinese Medicine' (TCM) which began in the 1950s and covers both practice of acupuncture and herbal medicine bring-

ing together many different theories and practice methods from historical practice in China.<sup>1,3,4</sup> Many other forms of TEAM practice can be found<sup>2</sup>, with their own pressures and influences from the modern period.<sup>5</sup> These different TEAM practice systems utilise similar language and terminology referring to ideas that emerged in the '*Huangdi Neijing*' treatises to construct their treatment approaches.<sup>1</sup>

Clinical practice is based on observations that are organised and classified according to the theoretical constructs of the system of practice into 'patterns' of diagnosis.<sup>6</sup> Each pattern of diagnosis has an accompanying treatment utilising the treatment methods of that system.<sup>1,6</sup> Unschuld argued for the role of socio-political influences throughout the historical development of different TEAM practice systems.<sup>3</sup> By focusing on differences between TCM and MT diagnostic descriptions the author explores issues important in how diagnostic patterns are developed in light of these influences.

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**Table 1**  
TCM heart related patterns described in Chinese, WHO and western sources.

Sources (number patterns)	Patterns
Wiseman, Feng 1998 <sup>9</sup> (34)	<b>Heart qi vacuity, Heart yang vacuity, Heart blood vacuity, Heart yin vacuity</b> Dual vacuity of heart qi and blood, Dual vacuity of heart yin and yang, Fulminant desertion of heart yang, Heart heat, Heart fire, Hyperactive heart fire, Intense internal heart fire, Heart fire flaming upwards, Heart impediment, Heart vessel stasis obstruction, Noninteraction of the heart and kidney, Phlegm fire harassing the heart, Phlegm confounding the orifices of the heart, Water qi intimidating the heart, Heart-lung qi vacuity, Heart-lung yang vacuity, Heart-lung yin vacuity, Dual vacuity of the heart and spleen, Heart-spleen qi vacuity, Heart-spleen blood vacuity, Heart-spleen yang vacuity, Heart-liver-blood vacuity, Exuberant heart-liver fire, Heart-kidney qi vacuity, Heart-kidney yang vacuity, Noninteraction of the heart and kidney, Heart-kidney yin vacuity, Exuberant heart-stomach fire, Disquieted heart spirit, Clouded spirit, Spirit failing to keep its abode
Wiseman, Ellis 1985 <sup>10</sup> (8)	<b>Heart qi vacuity, Heart yang vacuity, Heart blood vacuity, Heart yin vacuity</b> Upflaming of heart fire, cardiac obturation (blockage-blood/phlegm), cardiorenal yin vacuity, cardiorenal yang debilitation
WHO 2007 <sup>7</sup> (23)	Exuberant heart qi, <b>Heart qi deficiency, Disquieted heart qi, Non-contraction of heart qi, Heart blood deficiency, Heart blood stasis (obstruction), Heart yin deficiency, Heart yang deficiency, Heart fire flaming upward, Hyperactive heart fire, Internal blazing of heart fire, Overconsumption of heart nutrient, Phlegm fire harassing the heart, Water qi intimidating the heart, Effulgent heart-liver fire, Heart-liver blood deficiency, Heart-stomach fire ablaze, Dual deficiency of the heart-spleen, Non-interaction between the heart-kidney, Heart-lung qi deficiency, Heart deficiency with timidity, Spirit failing to keep its abode, Heat damaging bright spirit</b>
WHO 2019 <sup>8</sup> (24)	Phlegm-fire harassing the heart system pattern, Heart qi deficiency pattern, Heart blood deficiency pattern, Dual deficiency of heart qi and blood pattern, Heart meridian obstruction pattern, Heart yin deficiency pattern, Deficiency of heart qi and yin pattern, Heart yang deficiency pattern, Heart yang collapse pattern, Heart fire flaming upward pattern, Fire harassing heart spirit pattern, Water qi intimidating the heart system pattern, Heart spirit restlessness pattern, <i>Anxiety damaging the spirit pattern</i> , Heart and liver blood deficiency pattern, Heart and gallbladder qi deficiency pattern, Heart and spleen systems deficiency pattern, Heart and lung qi deficiency pattern, Heart and kidney systems disharmony pattern, Heart and kidney yang deficiency pattern, Other specified heart system patterns, Heart system patterns (unspecified), Heart meridian pattern, Pericardium meridian pattern
Maciocia 1994 <sup>12</sup> (11)	<b>Heart blood deficiency, Heart yang deficiency, Heart yin deficiency, Heart qi deficiency, Heart blood stasis, Heart fire, Heart and kidney yin deficiency,</b> Heart and gallbladder deficiency, Heart and kidney not harmonized, Heart and lung qi stagnation, Heart and spleen blood deficiency
Flaws, Finney 1996 <sup>13</sup> (16)	<b>Heart qi vacuity, Insufficiency of heart blood,</b> Heart-liver blood vacuity, Heart blood and yin vacuity inability to lie down, Heart-spleen dual vacuity, Heart-gallbladder qi vacuity, <b>Heart yang vacuity,</b> Heart blood stasis, Phlegm obstructing the orifices of the heart, Phlegm fire harassing the heart, Heart yang effulgence, yin and blood vacuity, Ascendant heart fire hyperactivity, Depressive heat in the heart channel, <b>Heart yin vacuity,</b> Heart and kidney not interacting, Summerheat damaging the heart and kidneys
Wilcox 2011 <sup>14</sup> (10)	<b>Heart blood vacuity, Heart yin vacuity, Heart qi vacuity, Heart yang vacuity,</b> Constrained heart qi, Heart blood stasis, Stasis obstruction of the blood vessels, Heart fire flaming upwards, Phlegm fire harassing the heart, Phlegm confounding the heart orifices

Patterns in bold are common across all sources.

### 1.1. Patterning and the heart

In MT the range of 'patterns' that are diagnosed is very small, following practical interpretations of ideas described in the *Nan-jing* (circa 100 CE). Four diagnostic patterns associated with the meridians were identified: the lung, spleen, liver and kidney.<sup>2,6</sup> It is notable that when these patterns were identified and used clinically for treatment, there was no heart pattern.<sup>1,2,6</sup> In contrast, TCM describes more than 100 distinct patterns of diagnosis with numerous possible combinations, with many heart related patterns (Table 1),<sup>7-10,12-14</sup> including some that refer to the '*shen*,' 'spirit.' The *shen* is seen as a 'fundamental substance' within TCM<sup>10</sup> and is seen in relation to the mind and emotions. But in MT, the *shen* is discussed hardly at all and when referred to is not understood in relation to the mind or emotions.

This essay will address the following questions and in so doing explore issues important to the development of patterns of diagnosis:

While TCM texts describe a number of heart patterns why do MT texts describe none? Does it exist and if so why is it not described in MT textbooks? Why is *shen* seen in relation to mental functions and emotions in TCM in China but not in MT in Japan?

## 2. Methods

To answer the above questions various literatures are reviewed. Publications describing the meanings of the terms '*xin*' and '*shen*'. Publications that describe the history of medicine and that describe the systems of TCM and MT exploring how the two terms have evolved over time due to cross-cultural influences and how

TCM and MT have come to understand those terms in clinical context in the modern period.

## 3. Results

### 3.1. Setting the stage

The term '*xin*' can be translated as the 'heart' or the 'mind.' At times it is not always clear whether one or the other meaning is intended, thus many sinologists prefer to translate the term '*xin*' as 'heart-mind.'<sup>15</sup> All Chinese characters that refer to mental or emotional states have the heart radical within them<sup>15,16</sup> which conceptually places the *xin* (heart-mind) at the core of all emotional and mental states. It is common to use the English word 'spirit' as translation for the term '*shen*'. But what *shen* means is quite variable depending on who used the term and what they meant by it. Table 2 summarises from among the range of early historical meanings associated with the term '*shen*.'

### 3.2. Translation and change

Sugita Gempaku's 1774 Japanese translation of a Dutch anatomical treatise resulted in a revolution of medical thinking in Japan, the country turned towards Western medicine as replacement for traditional medical systems.<sup>1</sup> By 1870, Western medicine was adopted and traditional medicines were restricted,<sup>1</sup> with acupuncture restricted to doctors and blind people and efforts to eliminate traditional concepts.<sup>1</sup> But others were allowed to practice leading to the development of MT by 1940.<sup>1,2</sup> The language of diagnosis is of deficient or excess meridians.<sup>6</sup>

**Table 2**

Examples of early uses and meanings of the word 'shen'.

Meanings [Sources]
1/ Religious concept - associated with heaven: gods, nature spirits and harmful entities such as demons, ancestral spirits <sup>*17,18</sup>
2/ Cosmological concept (from heaven) associated with living things seen in e.g. <i>Huainanzi</i> (circa 120 BCE) <sup>17</sup>
3/ Ineffable concept e.g. <i>Yijing Xici</i> , (circa 300 BCE) "What <i>yin</i> and <i>yang</i> cannot measure is called <i>shen</i> " [17:191]
4/ Refined form of <i>qi</i> that one seeks to cultivate in for example <i>yangsheng</i> practices - see the <i>Neiye</i> (late fourth century BCE) which describes how to cultivate <i>shen</i> (invite it into the body) <sup>15,17</sup>
5/ Vitality of the body responsible for maintaining and protecting the body - seen in the <i>Lingshu</i> (circa 100+BCE) and the <i>Nanjing</i> (circa 100 CE) as 'shen' and 'shenqi' <sup>18</sup>
6/ Skill or knack seen e.g. in <i>Zhuangzi</i> (fourth century BCE) in relation to butchery, and the <i>Lingshu</i> (circa 100 BCE) in relation to needling technique <sup>15</sup>
7/ 'Spirit' inside the body, one of the five <i>shen</i> ( <i>shen, yi, zhi, hun, po</i> ) - new concept introduced in the <i>Neijing</i> (circa 100+ BCE) <sup>**18</sup>

\* Here the individual performed rituals and sacrifices to try to placate or bribe these harmful *shen* (demons, ancestral spirits)<sup>18:14</sup>

\*\* Of this Unschuld comments that by locating the *shen* inside the body, the authors of the *Neijing* introduced a completely new concept where the individual can take responsibility for themselves. If they maintain their body properly these five *shen* remain within their respective organs and cause no harm. But if the individual does not control their emotions or habits, this can cause disruption of the ability of the organs to hold these spirits allowing them to break out and cause disease.<sup>18:14-5</sup> *Lingshu* Chapter 71 states if the *shen* stored in the heart is disturbed this causes death,<sup>18:503</sup> this places a clear onus on the individual to regulate their emotions and habits so as not to disturb the *qi* of the organs, especially the heart organ.<sup>18:14</sup>

The process in China of medical assimilation from the West accelerated after 1830 when Wang Qingren first described modern anatomy.<sup>3,4</sup> This helped reinforce western medical influences in China. In the first half of the twentieth century, traditional medicine lost ground. In the 1950s TCM was established, when Mao helped set it up to address the country's public health problems.<sup>1,3,4</sup> Thus the target of diagnosis and treatment is generally the internal functional systems such as the internal organ systems.

From this brief description we can see fundamental differences between how TCM and MT were formulated and practiced. While TCM mostly formulates its patterns in terms of the internal systems (Table 1), MT formulates its patterns in terms of deficient meridians, each with emphasis on different diagnostic techniques.<sup>1,2,6</sup>

### 3.3. Why no heart pattern in MT?

The study group in the 1930s encountered a passage in *Lingshu* Chapter 71 which says that the heart itself cannot become diseased because if it does it would cause the *shen* to leave and lead to death.<sup>16:502-3</sup> Thus the early MT study group did not expect to find a heart pattern.

TCM describes a variety of heart patterns (Table 1), mostly referring to organ problems. The texts in Table 1 mention from 8 to 34 patterns related to the heart at an average of 18 patterns. Wiseman's text is a kind of encyclopaedic dictionary, compiled from historical and modern Chinese literatures.<sup>9</sup> The more nuanced detailed patterns of diagnosis allow clinicians to refine herbal prescriptions. These nuanced descriptions are not necessarily relevant in traditional acupuncture practice. One of the primary goals of acupuncture is to 'regulate the *qi*,'<sup>15</sup> diagnosing and treating to restore balance to the meridian system, so that it can help regulate the internal systems.<sup>15</sup> Japanese MT focused on these descriptions developing a treatment model that attempts to reproduce them.

### 3.4. Is there really no heart pattern in MT?

While there is a rationale for no heart pattern in MT, the story does not end here. Some experienced clinicians of MT have stated that it can occur but that it is exceptionally rare [Toshio Yanagishita, personal communication 2003, Haruhiro Kasumi personal communication 2006]. The rareness of the heart pattern is due to the symptoms that must accompany it: severe acute cardiovascular disease such as heart failure, heart attack or severe (and usually more acute) psychiatric symptoms such as psychosis, schizophrenia. Patients with these severe symptoms rarely come for acupuncture in Japan.

In 30 years of using MT I have had two patients that I diagnosed as having the heart pattern, one with acute psychiatric

symptoms, one with acute cardiac symptoms. In order to get a sense of frequency of this rare pattern I sent out a simple questionnaire in April 2020 to 19 other MT colleagues all of whom have practiced MT for more than 10 years and teach *Toyohari* MT. Ten of the 19 (range 10–20 years, average 16 years) reported never diagnosing the heart pattern. Nine, including myself, (range 10–30 years, average 21.3 years), reported seeing from 1 to 4 heart pattern patients (19 cases). Thus among 19 experienced practitioners, 19 cases have been identified in more than 350 years clinical experience. The twentieth MT practitioner (20 years) recently retired as a primary care general practitioner, reported seeing 2–3 heart pattern patients per year, all with severe cardiovascular disease, either waiting for the ambulance, armed with emergency referral to the hospital or waiting surgery for severe chronic heart disease. In general, patients with these symptoms and diseases do not go to acupuncture practitioners. Practically speaking the heart pattern is not described or useful and is thus not described in textbooks.

### 3.5. Why do TCM practitioners associate shen with the mind or emotions and diagnose shen related patterns while MT practitioners do not?

To answer these questions it is useful to recall that just as Westerners were looking at Asia for knowledge and information, so too were people in East Asia looking at Western countries for knowledge and information.<sup>1</sup> With this kind of exchange it is normal that ideas that started in one culture spread to the other and then reappear in the origin culture in variant form. The story of how the concept of the 'nerve' was received and understood in Asia is a case in point.

TEAM medical systems had no concept of the nervous system or of a 'nerve', these are constructs of Western origin. Over the centuries in Europe authors suggested quite different things about nerves before the advent of modern neurology. Achillini and Descartes (1520–1664) suggested nerves helped transport the spirit around the body.<sup>19</sup> In his book in 1774, Gempaku had to decide how to translate foreign terms into Japanese using Asian language terms. Since, Western authors had suggested nerves are rapid pathways for the movement of the spirit in the body, he chose to translate the term 'nerve' as '*shenjing*' 'spirit pathway.' What about the 'brain'? While in early Chinese medical literature the brain (*nao*) was recognised and described it was not seen as a significant structure - similar to what is described in other older cultures.<sup>20</sup> But by the late 1570s probably through Li Shizhen, the brain started to be associated with the *shen* as the 'house of the original spirit'.<sup>9</sup> According to Wiseman, Li saw the brain as 'the seat of mental activities'.<sup>9</sup> Why this transition of understanding and meaning? Is it because Galen (circa 200) had sug-

gested the brain was the seat of the soul, an idea repeated by da Vinci (1500s)?<sup>20</sup> Were Western ideas penetrating China influencing how physicians there described the brain? Sivin describes how Wang recognised “the brain, not the heart, was the seat of memory” from reading Chinese books that had been influenced by European sources.<sup>4:140</sup> I do not claim to have identified exactly when people in China started associating the brain or *shen* with the mind or emotions, I have merely sought to show that at some point a transition of understanding occurred, possibly in the texts I have discussed and most likely in relation to ideas of Western origin.

Today the WHO defines *nao* the brain, as the place where “the spirit, mental activities as well as thinking take place...the house of the original spirit...which is the source of mental activities.”<sup>7</sup> The WHO defines *shen* in three ways: the “mind;” “spirit;” “vitality.”<sup>7</sup> Wiseman defines *shen* in two basic ways, in a narrow sense as spirit which “is what normally makes us conscious and alert during the day.... and thus corresponds to the English word ‘mind’” and in the broader sense as vitality, which is associated with healthy appearance.<sup>9</sup> If we look at the range of meanings found in Table 2 and the fact that term *xin* refers to the mind it does not appear that the early literature associated *shen* with the mind. Why in TCM is *shen* now routinely associated with the mind? Is it because in China students of TCM learn modern anatomy and physiology before studying TCM. Without knowing why the nerve is called the *shenjing* everyone studies about the nerves as the *shenjing*. Is it not likely after learning this that the *shen* becomes associated with the nervous system and emotions? In her research on how TCM describes and treats emotional problems, Zhang illustrates many changes showing how traditional medicine in China reconceptualised health, disease, body and mind: “When referring to an illness, ordinary Chinese do not typically make distinctions between ‘of nerves’ (*shenjing*) and ‘of mind or spirit’ (*jingshen*). Chinese use ‘neurological disorder’ (*shenjing bing*) casually to mean ‘mental illness’ (*jingshen bing*).”<sup>16,11</sup> For whatever reason, TCM associates *shen* with the mind and emotions. Why in MT is *shen* not a diagnostic concept or described in relation to any patterns of diagnosis?

In Japan the general understanding of ‘*shen*’ is usually associated with religion. This is more common in Japan than other Asian countries due to *Shintoism*. (‘*Shinto*’ is the ‘way of *shen*’) being one of the dominant religions. For many in Japan the term ‘*shen*’ means ‘god’, it is related to nature spirits or gods, the first meaning in Table 2. This usage does not usually cross over into medical practice. Instead when the term ‘*shen*’ comes up in MT, it is more common to see it as referring to ‘vitality,’ one of its generally acknowledged meanings in TCM,<sup>7,9</sup> reinforced in MT by a passage in *Lingshu* Chapter 3 which equates *shen* with the *zhengqi* (upright or healthy *qi*)<sup>18:67</sup> The term ‘*shen*’ is not normally associated with the mind. Further in MT, since premedical<sup>15:61-4</sup> and early medical literatures<sup>15:63, 18:15</sup> explicitly acknowledge that emotions cause or are disturbances of *qi*, then emotions are seen in relation to *qi* not *shen*. Thus for MT practitioners it neither plays a role in diagnosis nor is it associated with the mind or emotions.

#### 4. Discussion

The process of making a diagnosis in TEAM is commonly called pattern identification (PI), in TCM ‘*bian zheng*’, in MT ‘*sho kettei*’.<sup>6</sup> In this brief comparison of TCM and MT we have seen significant differences in how underlying concepts of *xin* and *shen* are used in diagnostic formulations. There are clear justifications for these different outcomes. This raises challenging questions for researchers investigating TEAM practice.

Since PI is one of the foundations of TEAM practice and there are historical and cultural influences that yield different PI diag-

noses, the question arises: what is the ontological nature of the TEAM PI diagnosis? Clearly it must be different than the diagnoses of modern biomedicine which are rooted in objective data from observation, tests, measurements, scans, each data point with scientific testing to establish the results.<sup>21</sup> TEAM diagnoses lack these data gathering approaches and perspectives<sup>21</sup> and are influenced by other cultural factors. It has been said by some that TEAM diagnoses are about figuring out what is the appropriate treatment to apply rather than describe the nature of the disease.<sup>1,6</sup>

General differences in disease manifestations due to bio-cultural variation is known in modern medicine.<sup>22</sup> Given what we have seen, to what extent is this important in the practice of TEAM systems in different countries? Another factor that creates differences of understanding and application is the process of translation. Translation of technical texts requires interdisciplinary knowledge crossing fields of linguistics, philology, the field being translated. The knowledge and background of any translator of TEAM texts can significantly influence how texts and concepts are understood and translated.<sup>23</sup> The translation of Chinese texts into European languages has likely introduced variations in meaning and understanding.<sup>1,23</sup> Together these cultural and academic issues will lead to different practice approaches than those found in Asian countries. It will be important to investigate these differences further if we wish to attempt to generalise findings from studies of TEAM practice in one country to another or attempt to adopt Asian descriptions into Western practice.<sup>24</sup>

The above two issues lead to a third. The WHO formally adopted ‘traditional’ diagnoses within the international system of diagnoses the International Classification of Diseases (ICD). This is seen in the 2019 ICD-11 [<https://icd.who.int/browse11/l-m/en>], which lays out primarily TCM descriptions.<sup>25</sup> Research exploring TEAM diagnoses is limited.<sup>11,26</sup> The appearance of TCM diagnoses in the ICD-11 is confusing and has been criticised.<sup>27</sup> Additionally codes are not inclusive as they are focused on TCM descriptions,<sup>25</sup> lacking detail of other TEAM practice systems like *Kampo*, Korean *Sasang*, with no mention of systems like MT or other traditional systems like *Ayurveda*.<sup>25</sup> Currently these descriptions are misleading and potentially create inaccuracy and controversy. Further, we can see in Table 1 that the ICD codes describe at least one heart pattern not mentioned by other sources (in italics) raising concern about whether these descriptions can be considered standard. There may be a general lack of ‘standards’ in the field of TCM within and outside of China, making any efforts to set international standards as premature. A recent review of literature on the diagnosis of the key pattern ‘blood stasis syndrome’ (BSS) concluded “The diagnostic criteria for BSS are still not unified”.<sup>28</sup> A review of Chinese textbooks similarly concluded “blood stasis appears to be a developing concept.”<sup>29</sup> How many of the other patterns lack standard agreed upon descriptions? The WHO traditional codes also do not address the problem of inherent cultural and bio-social variability in diagnoses.<sup>30</sup> The DSM V classification of mental diseases both includes internationally acceptable standards for a disease like depression, also recognizes regional, culturally-based variants like Korean ‘*hwabyung*’.<sup>24</sup> The research needed to determine which TEAM diagnoses can be set as an international standard and which are regional-cultural variants has not been done. The variability of TEAM systems of practice due to historical and cultural issues, the lack of established objectivity and scientific evidence related to PI exposes the need for further research. A broad range of research strategies are needed to address these problems.<sup>6,11,26</sup>

In conclusion, there are valid historical and cultural reasons for differences in how the concepts of *xin* and *shen* are understood and used in diagnosis in the Japanese and Chinese TEAM systems of MT and TCM. These examples suggest further research is needed to elaborate and identify critical issues that are important for education, practice and research. Researchers need to be aware of these

differences so as not to make mistaken assumptions in their research.

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This is the sole author's work.

### Conflict of Interest

The author is an Editorial Board Member of the journal, but the author had no part in editing this work and it was externally peer reviewed.

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### Ethical statement

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### Data availability

The data will be made available on request.

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