

## Full-Length Article

**Comparing the Clinical Course of Tuberculosis with the Musical Flow of Chopin's Prelude No. 4**Vernon H. Hoepfner<sup>1</sup><sup>1</sup>Department of Medicine, University of Saskatchewan, Saskatoon, Canada.**Abstract**

Frederic Chopin is a widely known composer and pianist who probably died of tuberculosis at age 39. The symptoms of the disease dominated much of his life, starting from early adulthood. He was extraordinarily creative, preferring to express his emotions through music, telling his piano things that weighed heavily on his mind. Early in his life, as he perused art, he would hear music; when he said his goodbyes he did so with music. The dominant weight that he carried privately, but grew heavier on his mind, with time was his illness, tuberculosis. His sister probably and friends whose deaths he'd witnessed also had tuberculosis. He was aware that he had a disease without hope and he foresaw his own death. He composed the Prelude No. 4 in E minor in Majorca during the winter of 1838-39 when his symptoms brought him near to death.

The Prelude has been described by experts as an expression of illness. Chopin requested that it be played at his funeral. While we do not know his thoughts about the Prelude, this paper considers how he expressed himself with music, the gathering burden of tuberculosis, and compares the clinical course of tuberculosis with the musical course of the Prelude.

**Keywords:** *Chopin, music, prelude, tuberculosis.*multilingual abstract | [mmd.iammonline.com](http://mmd.iammonline.com)*It would be easier for me to express my feelings in music - Frederic Chopin***Background**

Almost 200 years have passed since Chopin, "...got severely ill for the first time, his neck glands swelled with significant headache and respiratory symptoms." [1]. Clinical and post mortem records are not available. The death certificate listed TB of the lungs and larynx but the heart showed changes suggesting a disease not previously encountered [2]. It was reported in April 2014, that Chopin's heart, encased in an alcohol filled glass, was visually examined by genetic and forensic scientists [3]. In a subsequent news conference, they reported that it bore TB nodules and was much enlarged. Without genetic, histological, or microbiological testing however, questions remain. Since there is no gold standard by which to establish a diagnosis, we cannot say conclusively that Chopin had tuberculosis. The most we can say is that his course was compatible with TB, a prevalent disease that afflicted about a third of 19<sup>th</sup> century Europe [4].

In this context, Frederic Chopin probably had tuberculosis, the contemporary word for which was consumption. This was corroborated by his physician, the noted French consumption specialist Dr. Jean Cruveilhier, who signed the death certificate [2]. With the discovery of the germ in 1882 [5], science has known that tuberculosis was caused by a microscopic organism. It is coughed into the air by one person and breathed into the lungs unwittingly by another [6,7]. Most cases of tuberculosis appear in the lungs but can affect any or multiple organs like the lymph nodes in the neck (also known as scrofula), bowels, and liver. It may take years for a person to die through progressive wasting from which the disease acquired the name consumption [6]. As the germs grew, they formed tiny nodules that microscopists described as tubercles. To this the taxonomists added the suffix *osis*, the Greek word for disease, adopting the name tuberculosis to replace consumption.[6] Since the description of cystic fibrosis in 1936 and 1938 [8,9] it has been suggested that Chopin's illness was cystic fibrosis [10-12]. Cystic fibrosis is a genetic disorder that affects the lungs, pancreas, liver, and intestines. The illness results in thin fluids like sweat, mucous, and digestive juices thickening. In the lungs thick sputum causes recurrent infection which destroys parts of the lung. The destruction leaves hollow spaces or cysts that fill with pus. Repairing the destruction causes scarring or fibrosis leading to respiratory failure and early death. The constant feature is an elevated salt content of sweat [13-15].

## PRODUCTION NOTES: Address correspondence to:

Vernon H. Hoepfner, MD Address: Department of Medicine, University of Saskatchewan, Royal University Hospital, 103 Hospital Drive, Saskatoon, SK, Canada S7N 0W8. E-mail: [vernon.hoepfner@usask.ca](mailto:vernon.hoepfner@usask.ca) | COI statement: The author declared that no financial support was given for the writing of this article. The author has no conflict of interest to declare.

There are 4 compelling reasons why cystic fibrosis was unlikely – 1) he had scrofula [2] which was common in consumption but not a feature of cystic fibrosis; 2) he did not have clubbing as was illustrated with the post mortem cast of his left hand [12,16]. Clubbing is reported in at least 75% [17] to 100% [18] of people with cystic fibrosis; 3) there is no record that he had noticeably salty sweat. The salty taste of a baby's forehead was interpreted as a sign of imminent death even before the Common Era [18]. Elevated sweat chlorides remains the gold standard for the diagnosis of cystic fibrosis, that is to say everyone has this feature; [13-15] and 4) the likelihood of Chopin having consumption was at minimum 1000 times greater in early nineteenth century Europe since consumption affected a third of the population (33,333 cases/100,000 population) [4,19] compared to cystic fibrosis that affected 33 cases/100,000 of the European population [20].

I am a respiratory physician who specialized in tuberculosis. Physicians, and sick people too, tend to see the world through illness – how and why it changes one's body; how it affects one's thinking and emotions; how the burden of illness dissipates with improvement and the possibility of cure and how it magnifies with progression especially when there is no cure. I am an amateur pianist and was a Chopin aficionado before I learned that he probably had tuberculosis. The tuberculosis connection came while doing some preparatory reading for a presentation on the famous people who had tuberculosis. With tuberculosis added to the Chopin historiography, my thoughts followed the by now familiar pathway of how tuberculosis affected his life and how this life affected his music. Then the music spoke a more familiar language, as much tactile as auditory. His Prelude No. 4 in E minor especially spoke the language to me of tuberculosis and death. This paper compares the clinical course of tuberculosis with the musical flow of Chopin's Prelude No. 4 to illustrate similarities.

## Introduction

Music and tuberculosis merged in the life of Frederic Chopin. He was born in Zelazowa Wola, Poland in 1810 and died in Paris in 1849 [21]. His life was a story of music, about becoming a transcendent pianist and composer whose music captivated the world. It was also a story of tuberculosis, the probable illness that ended his life [2,22]. After his first pulmonary hemorrhage in 1835, his life was increasingly dominated by tuberculosis [2,4,23]. As one who expressed his thoughts with music, was it possible that tuberculosis constituted the framework of some of his music? Did he write about his experience with tuberculosis in music?

As a musician Chopin was reportedly not programmatic [24-26]. Moreover, he left no legacy of interpreting his own music with one exception [21]. However, in his own words he expressed his feelings in music and told his piano about the

things that weighed on his mind [21,27]. Tuberculosis was a gathering weight on his mind. His sister probably, a childhood friend, and a student had tuberculosis and died, his sister before his eyes and his friend in his arms [21]. His illness progressed in a series of crises and remissions leading to more than one brush with death. With these elements surrounding his music composition, it is possible that his music expressed the torments that arose from tuberculosis and the agony of death that he witnessed in his intimates and foresaw in himself.

His sister Emilia had recurrent respiratory infection, dyspnea, weight loss, and hematemesis and died of a gastro-intestinal hemorrhage [28]. Like Frederic's illness, there is no clinical record of Emilia's illness. Breitenfeld wrote that after Frederic recovered from his illness at age 16, his sister Emily (sic) got tuberculosis in the same year. Her health deteriorated and she died [1]. We cannot be certain of her diagnosis. Hematemesis and lower gastro-intestinal bleeding caused by tuberculosis was recognized in the 19<sup>th</sup> century. It is currently recognized and has been recently reported [29-31]. The most we can say is that her course was compatible with tuberculosis.

To illustrate some similarities between the clinical course of tuberculosis and the musical flow of the Prelude No. 4 that could be interpreted that Chopin wrote about his observations and experience with his illness in music, this paper considers how he used music to express his feelings, how religion affected his life; the possible effects of illness on his music; the interpretation by experts of the Prelude, and his request that the Prelude be played at his funeral.

## Music, Tuberculosis, and Religion

The story of Chopin is about music; this was his main legacy. He began playing piano at age four, taking lessons and playing melodies at age six [2,21]. He went on to write sublime music becoming one of the most accomplished romantic composers. It is the story of a musician who expressed his thoughts with music. Alexander Pope, also a phthisic<sup>1</sup>, wrote about one hundred years earlier that expression is the dress of thought [32]. Expected by his father to send reports from boarding school, the eight year old wrote, "Dearly beloved father, it would be easier for me to express my feelings in musical phrases..." [21] At age 20, after visiting an art gallery he wrote, "There are pictures there at the sight of which I hear music." Leaving Paris for Majorca in search of a more salubrious climate for his illness, Chopin said goodbye to friends with music. One of them wrote, "...at the end (he played) a funeral march, which made me burst into tears...It was the procession taking him to his last resting place" [21]. His friend F. Liszt, described him as one whose "...music was his language, the divine tongue through which he expressed a whole realm of

<sup>1</sup> Greek word for consumption; precursor of the word tuberculosis. Phth pronounced as th or t [34,35].

sentiments”[23,33]. For him music was “as the devout in prayer, (where) he poured out his soul in his compositions, expressing in them...sorrows to which the pious give vent in their communion with their Maker...; uttering in the language...which man understands without words, because there are no words adequate for their expression”[23]. Heine observed that, “his fingers are but the servants of his soul, and that is applauded by people who hear...with their own soul”[21,36,37].

The story of Chopin is also about illness. He was born in a neighboring village but grew up in Warsaw [21]. Tuberculosis was ubiquitous - virtually all adults were infected with tuberculosis [19] and a third of the population of Western Europe developed the disease.[4] Since contact with it was impossible to avoid [2,21], the probability of early infection was high. At age thirteen he was sent on a holiday to Szafarnia in part due to his parents’ concern for his health. At age 15 a school friend was ill with tuberculosis, dying a slow death four years later. His younger sister Emilia probably had tuberculosis that reached a critical stage when she was twelve. As a last hope her mother took her to a spa for a cure. She took Frederic, who had swollen neck glands thought to be scrofula [2], saying it would be good for him too [21]. Emilia died before his eyes two years later when Frederic was 18. When he was 20, his music teacher was ill with tuberculosis. In his early twenties, “...during entire months, he would appear to be in an almost dying state”[23], about which an acquaintance wrote, “Chopin is irresolute; with him only his cough is dependable”[21]. At age 25 he coughed up blood for the first time [2,21]. On returning to Paris from Majorca, the Barcelona hotel keepers demanded payment for the bed and mattress in order to burn them, concluding that he was highly contagious [2,21,23,37]. The contagiousness of tuberculosis was generally accepted in the Mediterranean countries during this period [4,38] but not confirmed scientifically until about 1900 [7]. By the time he went to Majorca at age twenty-eight, a friend noted that, “consumption has taken possession of his face, making it a soul without a body”[21,37]. In a letter to another friend Chopin wrote, “...my manuscripts sleep, and I myself cannot, I only cough and...wait for Spring...”[37] Sand’s daughter wondered, “(Was) it because his life was a 39 year agony that his music is so lofty, so sweet, so sublime?”[21] Huneker thought so, writing that from “Chopin, diseased to death’s door,...came sweetness and strength” [24]. Liszt inferred that, “Since his health was too frail to vent his impatience (physically), he compensated by pouring his (thoughts) onto those pages which he loved to hear performed with a vigor that he could not command”[23].

The Chopin household practiced simplicity, piety, and integrity [21,22]. His mother was very religious[21] so his formative years were pious where the family practiced religious habits.[23] During his Poland years, he played the church organ on Sunday each week [39]. Liszt also described him as “sincerely religious and attached to Catholicity”[23].

While keeping his religious ideas to himself during his Paris years [23] he embraced them more openly in later life. In the year before his death he told a friend that, “I shall play hymns to Our Lady on the organ” [21]. During his last months he finalized arrangements for his death that included the musical program for his funeral [23,33]. When he was dying, another friend noted that he made his confession and received the Last Sacrament. Visitors to his deathbed, including the Abbe, said prayers and recited litanies [21,23,24,33]. He embraced Catholicism, a central canon of which was the after-life of the soul.

### Effect of Illness on Music

The ancient Greeks had the notion that phthisis and artistic creativity were related [4,38]. Phthisis had traits that were suited for artistic expression: [4] the illness progressed gradually with periodic crisis and remission while sparing intellectual capacity; it caused immobility and/or disability that either enhanced or became the catalyst for reflection, reading, and expression; [4] the morbidity led to less socialization, a necessary element for reflection; and remission brought with it a creative urgency induced by the passage of unused time in a foreshortened life. Some, artists in particular, rejected illness preferring to consider tuberculosis as a way of being, almost a choice, rather than a disease [4,38]. If this connection existed, Chopin was an example of such a manifold artist. Additional talents included an irreverent wit that he expressed by drawing incisive caricatures. Another was miming which was so accomplished that a contemporary French actor said that he wasted his talents becoming a musician [21].

The crisis and remission of Chopin’s tuberculosis, including the Majorca period, “could not help but influence his work” [4]. It was thought to “have sustained and shaped his musical creation” [4]. He spoke the divine tongue [21] of music that had the advantage over words - less deception [4,40] and a broader range of expression for experiences that words could not describe [23]. In an 1831 letter to a friend he wrote, “It is dreadful when something weighs on your mind, not to have a soul to unburden yourself to. You know what I mean. I tell my piano the things I used to tell you” [27]. While this may not have been a reference to tuberculosis, it is possible that he spoke to his piano about tuberculosis when it weighed considerably heavier on his mind than the Russian-Polish situation or his first love [21]. What was he telling his piano with the preludes seven years later in Majorca, when he was extremely ill and had a brush with death? [21].

### The Preludes & Prelude No. 4 in the Chopin Oeuvre

Chopin was the master of small forms and the Preludes were the smallest forms [41]. He wrote them as stand-alone pieces that he performed separately or in groups. They have the

qualities of brevity and monothematicism that reveal themselves individually. They have been titled as moods in miniature [24]. We can look at them, “as the pure essence of the composer’s musical thoughts at the time – one might say the vivid reflections of his inner self” [42]. They have been described as “musical poems occasioned by a single deeply felt event” [43]. It was contemporary France that promoted the view of Chopin as a composer, “de chambre de malade” [44,45], the consumptive with the pallor of the grave. Through his music he disclosed his suffering [44].

The atmosphere of the Prelude No. 4 and others is morbid, azotic<sup>2</sup> [42], tormented [23], tragic and angry [46]. Chopin seemed to be absorbed in the narrow sphere of his ego from which the world was shut out [47]. For background he substituted his soul [48]. It is possible that it was an eloquent statement of his inner life [46] and difficult to find an adjective to fully express the exquisite sadness. The melody seems literally to wail [48]. It is full of impassioned feelings of a man suffering deeply from wounds which he does not avow [23]. Its despair has the antique flavor with a breadth, nobility and proud submission [48]. To it clings a faint flavor of disease, a something which is overripe and febrile in its passion [42]. It has a vocabulary of terror, composed in sickness [33]. The central feature of this prelude is the division into two parts – m1-12 and m13-25. “The chugging motion in the bass accompaniment ceases about midway, the melody wandering along until the opening music is heard again in a restart” [49]. The second half builds to a powerful climax at m16-18 [46] and reaches its greatest intensity at the stretto [48]. From m18 to the end, the emotion calms through diminuendo and ritardando [46]. To Bulow who named it ‘suffocation’ and Cortot who named it ‘above a grave’ [25], it connoted an agitated death. It was this Prelude that Chopin requested for his funeral [21,33]. The request might have signaled that the piece had the thematic qualities that he wished to announce at his final ceremony [25,41].

It is possible that Chopin wrote other music that represented his illness. Bulow labelled the Prelude No. 2, “Presentiment of death” and Cortot a, “Painful meditation” [25]. The music is gloomy evoking pain and death. Since these features characterized some of Chopin’s life, they could be expressions of his feelings. Since they were likely caused by tuberculosis, it could represent the illness. In such an interpretation, the Prelude No. 2 expresses a narrower spectrum of illness, namely gloom, pain, and death. The Prelude No. 4 has these elements and, in this interpretation, adds features of progressive decline, remission, relapse, crisis, surrender, and fading. It does this with a musical flow that is similar to the clinical flow of tuberculosis. There are other compositions that could be expressions of tuberculosis such as

the Prelude No. 20, which has a funereal quality, and the Funeral March from the Sonata No. 2 in B flat minor. The differences from the Prelude No. 4 are the flow and spectrum of the expression. In such an interpretation the funeral march becomes a liturgical expression of the ceremony observing death, “the procession taking him to his last resting place” [21]. This was the description recorded by a friend.

There is no record that Chopin either said or wrote that any of his music described illness or death. His extreme reserve where the outside world was concerned was, “a pre-eminent feature of his psychological make-up...His attitude towards his work was that of a closed book. Not even to his intimate friends did he reveal what was at the back of his mind, what were the mainsprings of his music” [26]. The record by him that he wrote music about death a decade before he died is also blank. What we have is music that has been interpreted as death and pain even before he went to Majorca. He composed and played a funeral march prior to his journey to Majorca which, when Chopin played it, a friend interpreted as, “the funeral procession taking him to his last resting place” [21]. The Prelude No. 2 was written “a long time before he went to Majorca” [24]. It was labelled by Bulow as the presentiment of death.

That he wrote about his own death seems even greater speculation. In this paper Chopin’s tuberculosis is presented to illustrate the course of tuberculosis since it has been described in such detail. This does not imply that Chopin’s used his illness as the model for the music. He observed tuberculosis all around him and was intimately acquainted with the illness in his social circle – his youngest sister probably, a friend, and at least one teacher and one student. He personally had experienced these features. The most we can say is that he could have used what he observed in others, and what he experienced personally, to express these feelings in music. He similarly observed death in intimates – his youngest sister probably and a friend. He was fully aware that he had an illness without hope [23]. In Majorca he had a third brush with death [1]. He, his doctors, and consort George Sand thought he was dying. Sand described him as mortally ill [21]. When he was not laid out by illness, he worked on the preludes [21]. The most we can say is that he could have used what he observed in others’ deaths and his personal brushes with death, the real and frightening Majorca personal experience where he and others thought he was dying, to express in music those feelings about death before he died.

#### Interpretations of the Prelude No. 4

While the date of writing the Preludes Op 28 has been much debated [21,24,33,37], some were likely composed in Majorca, including the Prelude No. 4 [24,33, 37]. This piece had November 22, 1838 placed on the sketch [37]. Experts described it as tormented but beautiful - as a little poem [21,23] and as small falling stars dissolved into tones as they

<sup>2</sup> Deadening – archaic. W. Little, H. W. Fowler, and J. Coulson. *The Shorter Oxford English Dictionary*, Oxford: Clarendon Press, 1978.

fall [24]. It has also been described as gloomy – expressing true sadness, a tormented melody into which rarely has so much grief been poured to such powerful effect into so tiny a mold [49], The idea that illness could be detected in music was also proffered by H. Barbedette in his 1861 *Essai de Critique Musicale* [50]. Since the Prelude No. 4 in E minor and other compositions too, such as Prelude No. 6 in B minor, Prelude No. 20 in C minor, and the Funeral March from the Sonata No. 2 in B flat minor, are suffused with weariness and death [33], they could be the musical expression of the torments that increasingly dominated his life [23].

Chopin did not label his works beyond Prelude, Scherzo, Mazurka, etc [24,25] nor did he provide interpretations about what was at the back of his mind [26]. An exception was the Piano Concerto No. 2 that was inspired by his first love. He wrote that, “...(the concerto) should give the impression of gazing at a spot which brings back a thousand cherished memories...”[21] The benefit for the listener of unprogrammed music is broad interpretation that allows the music to work its magic [24,25]. The magic, “...cannot provide an etched-in-stone opinion of Chopin’s intent; the interpreter must decide what the preludes...mean” [24,25]. The interpreter can be a professional musician with expert views, a casual listener with private thoughts, or an amateur pianist. Each will find their nuanced magic. To an interpreter who is familiar with tuberculosis, the Prelude No. 4 in E minor, Op 28 can become the musical expression of tuberculosis. At the time Chopin wrote the Prelude his sister probably and some friends had died of tuberculosis and he already had brushes with death. Moreover, he had foreseen his own death since he had an illness that was without hope [23]. It was the music of the Prelude in E minor, played at his request, that accompanied his body up the nave of L’eglise de la Madeleine [33], borne in clothes that he wore giving concerts [23]. That request probably revealed ever so briefly some of the thoughts that he expressed in this composition [25].

### The Clinical Course of Tuberculosis

Since Chopin’s illness was documented in considerable detail, his clinical course illustrates the natural course of tuberculosis and is presented here for that purpose. His illness illustrated the acute and chronic phase of tuberculosis which prior to Laennec were considered different diseases [19]. The chronic illness followed what is understood as recrudescence tuberculosis in the pre-chemotherapy world [19,51,52] that Laennec described in his unitary theory of tuberculosis in 1819.[19] The early acute phase commonly occurred in children that passed either unnoticed, presented as a mild illness, or less commonly as acute progressive tuberculosis. Following a latent period, the chronic phase commonly

occurred in adults that ran a course of crisis and remission over several years, even decades. Chopin’s illness included all phases: the acute phase - mild to severe illness in early adolescence [21]; stable with few symptoms, likely scrofula [2], age 16; a latent symptom free phase until about age 20; the chronic phase – recrudescence age 21 when he appeared to be dying, followed by remission with minimal symptoms; cough with hemoptysis age 25; persistent cough confining him to bed age 26; feeble with more frequent and longer fits of coughing producing bowlfuls of blood and thought to be mortally ill age 29; remission with resumption of work soon following his 29<sup>th</sup> birthday; exacerbation of cough, short of breath and exhaustion age 30; as the crisis receded he began composing again age 31; another relapse with nocturnal cough, spitting and choking, no longer able to walk stairs age 33; looking moribund age 35; decrease of suffering which (disease) sometimes grants to the dying [21] age 37; prolonged attacks of spitting blood, more restricted walking, limiting piano to simple pieces age 38; more severe hemoptysis, swollen legs, face dark with suffocation age 39. When asked whether he was suffering, he replied, “No longer”[21]. He died a few hours later October 17, 1849 age 39 years 8 months.

### The Musical Course of the Prelude No. 4 in E Minor

The Prelude No. 4 was composed at a time when tuberculosis was dominating his life - missed concerts and deadlines, postponed proposal of marriage to his second love, move to Majorca to ease his symptoms [21] - and had brought him near death. He was a musician who preferred to express his feelings in music, telling his piano those things that weighed heavily on his mind. One cannot say with any certainty that this music expressed a specific illness since other chronic diseases of the 19<sup>th</sup> century – heart disease, cancer, and leprosy for example - had a similar course to the chronic phase of tuberculosis. In this presentation, the similarity between the clinical course of tuberculosis and the musical course of the Prelude is considered. In this interpretation the twenty-five measure Prelude is compatible with what he told his piano about the unyielding march of tuberculosis. The music of the Prelude No. 4 (Figure 1) [53] when translated into the words of tuberculosis becomes:

Measures 1-8	Mournful - progression, beat of decline
Measures 9-12	Brighter - remission
Measures 13-15	Darker - relapse, beat of decline
Measures 16-18	Crisis - choking, chaos
Measures 19-20	Fading - weaker, sorrow
Measures 21-22	Surrender - the fight is over
Measure 23	Death - unresolved
Measures 24-25	Requiem - resolution; repose of the soul.



Figure 1. Sheet music for Chopin Prelude No. 4. The number above each measure is the number of the measure [53].

The power of the music comes from an artfully designed form borne in “so tiny a mold” [49]. This contrasts with the random progression of tuberculosis that moves in formless chaos. The prose to write the story is much less economical.

## Summary

Chopin was a musical poet in the persistent embrace of tuberculosis. He probably expressed in music those thoughts which weighed heavily on his mind, thoughts that were never far from “the weariness, the fever, and the fret”. [54] These are the words of the phthisic poet John Keats with whom Chopin has been compared. [24] The Prelude No. 4 here is presented for its similarity of musical flow to the clinical course of tuberculosis. In this interpretation it becomes a musical record of his experience with tuberculosis. Since he did not leave an oral or written record of his thoughts about the Prelude, we cannot know his thoughts for certain. His request that the Prelude be played at his funeral may have accorded an example of a vivid reflection of his inner self [42].

The Prelude is a short piece loaded with torment. Technically it is not a difficult piece to play; artistically it is elusive. Every musician who plays the Prelude is telling part of

Chopin’s story. The musician who empathizes with his illness enhances that story.

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### Biographical Statement

Vernon H. Hoepfner, MD is a professor of respiratory medicine specializing in tuberculosis at the University of Saskatchewan and Royal University Hospital Saskatoon.