

ORIGINAL ARTICLE

The Hippocratic Book of Prognostics



281

Abstract

Clinical prediction plays a vital role in clinical care, as it informs health-care professionals, patients, and their relatives of the possible disease outcome, helping them to make a medical decision and improve health outcomes, if possible. Much more credit is often given to a physician for a correct prognosis than for the acute diagnosis or skilled treatment that underlies his statement about the course of the disease and its termination. Hippocrates established medicine as a scientific profession based on clinical observation and rational inquiry. Hippocrates and his followers focused more on prognosis than diagnosis. He mastered the art of prognosis based on the patient's signs and symptoms of diseases. The Book of Prognostics is a treatise attributed to him and fully dedicated to this prognostic approach. This book alone is sufficient to prove his greatness in terms of medical care and the art of healing. In this paper, his prognostic approach toward diseases with the help of signs and symptoms will be explored.

Key words: Hippocrates, Prognosis, Diagnosis, Signs and Symptoms

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Introduction

The intellectual foundation of contemporary medical practice is centred on diagnosis and prognosis. These ideas are based on philosophical concepts that the ancient Greeks introduced. The ancient Greeks attempted to comprehend the connection between observations and theories. These discussions led to the development of two significant ideas. The first was the practical forecasting activity known as “prognosis;” the alternative is the theoretical, explanatory concept that came to be known as “diagnosis.” (Lewelyn and Anderson, 1980, pp. 267-280) The Greek words *dia*, which means “by,” and *gnōsis*, which means “knowledge,” are the source of the word diagnosis. A diagnosis has also evolved to include a summary of the known mechanisms that led to the illness. During the diagnosis process, the physician responds to information gathered from the patient and others, such as the patient’s medical history and physical examination. Because clinical decision-making is tailored to a correct understanding of the patient’s health problem, the patient has the best chance of a positive health outcome when a diagnosis is made accurately and promptly. The medical term “prognosis” (older Greek, modern Greek) means “fore-knowing, foreseeing”. It refers to the doctor’s prediction of how a patient’s disease will progress and whether there is a chance of recovery (Thomas, Cooney, and Fried, 2019, pp. E1-E4). Prognostic information provides a physician with substantial evidence that can be used to guide patients regarding the course of the disease and the outcomes of treatment during the clinical decision-making process. To achieve the best outcome for each patient, a physician must become an expert in estimating the probabilities of various events that affect outcomes occurring along each therapeutic path (Ono, Sebastin, and Chung, 2013, pp. 655-665).

Life and works of Hippocrates

Hippocrates was a famous ancient Greek physician who introduced this world to a civilized and ethical medical practice. Hippocrates himself tried his best and encouraged the eradication of superstitious beliefs from the field of medicine. Due to his distinguished contribution to medicine, he has been considered the “Father of Medicine”. Like many scholars of the Classical period in Greek history, very little is known about Hippocrates’ upbringing and personal life. What is known is that the Greek physician was born around 460 BC on the island of Cos (present-day Greece) (Brock, 1952, p. 10). He was born in an era of intellectual exploration when there was a deep commitment to the search for enlightenment regarding life’s many mysteries. The inquisitive environment led Hippocrates to search for the answers to life and death. He was introduced to medicine by his father, Heraclides (Adams, 1849, pp. 9-23). Hippocrates has generally been regarded as the lineal descendant of Asclepius (Usayabia, 1990, p. 67). Hippocrates learned all the medical knowledge of his predecessors, which was a mixture of some philosophical as well as supernatural theories. He laid the foundation of medicine by proposing the theory of four humours and removing unreliable medical theories that had not been based on philosophical and logical observation or documentation. Indeed, this meticulous approach enabled Hippocrates to make sound diagnoses and practical therapeutic conclusions that are still acknowledged today. He is best known for advocating ethical standards in the field. As a teacher, he received the admiration of a number of his contemporaries, including the famous Greek philosopher Plato, who called Hippocrates “the Asclepiad of



Cos". Greek polymath Aristotle, a younger contemporary of Hippocrates, described the physician as "the Great Physician". His contribution to sound, ethical medical practice was so immense that almost all medical writings and compilations from the Classical Greek period were considered the work of Hippocrates. However, it has been revealed that Hippocrates did not actually write a significant part of the works attributed to him. The Hippocratic writings, also known as the Hippocratic Corpus (Corpus Hippocraticum), were known for having fundamental assumptions on some important medical topics. Almost all his writings rejected the claim that diseases were caused by superstitious factors (World History Edu, 2022).

Medical treatises like the Epidemics, in which annual records of weather and the diseases that coincided with those weather conditions or patterns, gained immense popularity among physicians of the Hellenistic era. There were also treatises on setting fractures, treating wounds, hygiene protocols for disease prevention, diseases of women and children, and other issues in paediatrics (World History Edu, 2022). The well-known Hippocratic Oath, that medical staff ought to follow, covers the ethics and objective process of diagnosing and treating human body ailments (Usayabia, 1990, p. 69). Even today, it is not uncommon for medical students and graduates to take a modified version of this oath and other derivatives (World History Edu, 2022).

Hippocrates and his followers belonged to the Koan school of thought, which focused more on prognosis than diagnosis. They used very mild and broad treatment techniques to tend to diseases. On the other hand, the Knidian School was more concerned with getting a diagnosis, which, at that time, could be fatal to the patient in cases of the wrong diagnosis. Many of the writings in the Hippocratic Corpus opined that the human body has the natural ability to heal itself by re-balancing the four humors (blood, yellow bile, black bile, and phlegm). The focus was on prognosis – i.e., monitoring the progression of the disease by collecting ample data (Brock, 1952, p. 11; World History Edu, 2022).

In a nutshell, the contribution of Hippocrates was so immense that centuries after his death, the techniques he adopted in disease diagnosis and prognosis kept shaping the field of medicine (World History Edu, 2022; Smith, 2022).

The Book of Prognostics

It is one of the treatises included in the Hippocratic corpus and is attributed to Hippocrates. As a Koan school follower, Hippocrates considered prognosis central to disease management. However, followers of the Knidian school often criticized this approach. In the 19th century, the great Hippocratic editors Ermerins and Littré heralded prognosis as the principal scientific achievement of Hippocratic medicine. They viewed the goal of prognosis as the accumulation of scientific fact and, as Edelstein put it, "the objectively significant knowledge of what the outcome of sickness would be." (Alexandre, 2008, p. 14)

This treatise comprises twenty-five sections; the first and last sections are the introduction and closing remarks regarding the importance of the prognosis of diseases, respectively. From the second to the twenty-fourth section, each is dedicated to some disease, body parts, or diagnostic tools like urine, faeces, etc. What signs of these entities would a physician investigate, and what indications would they give to calculate the prognosis of the patient's condition, good or bad?



In the first section of this treatise, Hippocrates highlighted the importance of prognosis. According to him, the doctor’s ability for prognosis is tremendous because if he can guess the present, past, and future of the disease while the patient is still ill and explain the mistakes the patient has made, he will be more likely to be trusted to understand the circumstances of the sick and patients will feel secure entrusting themselves to such a doctor. Given the situation, he knows what will happen, making him the ideal doctor for the treatment. It would have been preferable to be able to predict what would happen. However, since some diseases kill people, and some patients die before they call a doctor, it is impossible to treat everyone (The Book of Prognostics; One More Library, 2016).

Table 1 encompasses sections second to the twenty-fourth of the treatise (The Book of Prognostics; One More Library, 2016).

Table 1: The Hippocratic book of prognostics, second section to twenty fourth

| Section No. | Subject | Signs | Indication |
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| | | <u>The general appearance of the patient</u> Disease at onset: There is a sharp nose, hollow eyes, collapsed temples, rough, distended (swollen, expanded), parched skin over the forehead, green, black, livid (pale, bluish) or lead-coloured face, cold contracted ears with turned out ear lobes. | If these signs are present at the onset of the disease, insomnia, loose stools, and starvation should be enquired about. If the signs are due to these causes, it is considered less dangerous. If it is not due to the above causes, and the signs do not subside, a conclusion is to be made as death is near. |
| 2 | Acute diseases | Disease at an advanced stage (Either on the third or fourth day): If the same signs exist, then the same inquiries should be made, regarding insomnia, loose stools, and starvation. Along with these, other symptoms should be noted, if any, like photophobia, epiphora, squint, asymmetrical eyes, and conjunctiva presenting with red, livid, or black prominent veins, sticky secretions from eyes, and restless, protruding, or hollow eyes. If the face seems squalid (unpleasant, dirty) and dark and there is a colour change. Additional observations: Incomplete closure of eyelids during sleep should be evaluated. To establish the cause history of diarrhea, the use of purgatives, or as a habit should be investigated. Contracted eyelid, livid or pale eyes, lip, and nose. If lips are relaxed, drooped, cold, and blanched, | These signs are considered fatal. If the sign is not due to those mentioned causes, it should be considered fatal. Indicates death is near. Also, a fatal/mortal sign. |
| 3 | Posture | The patient reclines upon his right or left side with hands, neck, and legs slightly bent, and the whole body is in a relaxed state. On the contrary, lying on the back with extended hands, neck, and legs. If the patient inclines forward and sinks (falls) to the foot of the bed, If the patient is found with naked (bare) and cold feet, and his hands, neck, and legs are naked and tossed (rolled) abnormally, If the patient sleeps constantly with his mouth open, legs bent, and plaited together while he lies on his back, If the patient lies on his belly when he is not habitual to sleep like this during the state of health, Patient sitting erect at acme (peak) of the disease. Grinding of teeth: To grind teeth in fevers when the patient is not habitual of doing so from childhood. To grind the teeth in delirium. These above-mentioned patients should be observed for any previous or newly developed ulcer during the disease. | Considered to be a sign of health. Considered to be less favourable. Considered to be more dangerous. Bad signs and prognoses as an aberration of intellect (deviation of intelligence, delusion). It is considered a deadly sign. Indicates delirium or abdominal pain . Considered to be fatal in all acute diseases, particularly pneumonia (Bad signs). It indicates madness and death. It is a deadly symptom. If ulcers appear livid and dry or yellow and dry, then indicate death. |



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| 4 | Hand movements If a patient waves his hands in front of the face as in quest of something, or as gathering bits of stalks of grains or separating scrap from the wall in conditions like acute fever, pneumonia, phrenitis, or headache. | Considered to be a bad/ deadly sign. |
| 5 | Respiration Frequent respiration Deep respiration with a large interval. Cold respiration at the nose or mouth. Note: Normal/ good breathing should be assessed in patients suffering from all acute conditions like fever and those symptoms that come to a crisis in forty days. | Indicates pain or inflammation of structures above the diaphragm. Sign of delirium. Considered a fatal sign. It is a safe sign. |
| 6 | Sweat Those sweats occur on the critical days of acute disease and carry off the fever completely. Sweating all over the body. Cold sweats, that are confined to the head, face, and neck. Sweats are accompanied by a miliary eruption that is confined to the neck. Sweat in the form of drops or vapors. The entire character of sweat can signify different conditions | Considered a good sign. Favorable sign. It is the worst sign. In acute fever, it prognosticates death, while in mild fevers, it indicates prolongation of disease. They are considered bad signs. It is considered a good sign. Some indicate extreme body strength loss (exhaustion), and others indicate the intensity of inflammation. |
| 7 | Hypochondrium 1. If the hypochondrium is pain-free, soft, and symmetrical on both sides, On the contrary, if the hypochondrium is inflamed, tender, or distended, the right and left sides are disproportionately sized. If pulsation in hypochondrium is also present, If eyes in such patients exhibit rapid movement of the pupil, 2. A hard and painful swelling that occupies the whole hypochondrium. If swelling is on the left side of the hypochondrium, The above-mentioned swellings at the onset of the disease If the fever exceeds twenty days and the swelling has not subsided yet, Epistaxis at the onset of such conditions (However, epistaxis is common in younger age, i.e., patients less than 35 years) But, inquiry should be made regarding headaches or indistinct vision. 3. Soft and painless swelling that yields to finger occasion more protracted crisis If the fever exceeds 60 days without any subsidence of the swelling, If the swelling is painful, hard, and large, If the swelling is soft, painless, and yield when pressed with a finger, All protracted swellings about these parts- As far as the collected matter (in swelling) is to be judged If the swelling is small and protrudes very much outwards and swells to a point. If the swelling is large and broad and does not protrude out to a sharp point, Swelling that breaks internally if it does not have external communication, but is covered, indolent, and free from discolourations. If pus is white, homogenous, smooth, and not at all fetid, | It is considered a good sign. It is a dreadful sign. It indicates anxiety or delirium. It indicates the onset of insanity. It is considered a bad sign. It is less dangerous. It indicates rapid death. It indicates the turning of swelling into suppuration. It is a good sign. If these are present, the disease will be determined thither . These are less dangerous than others. It indicates the onset of empyema. It indicates rapid death. It indicates chronicity (Swellings of hypochondrium as compared to abdomen swelling more frequently form abscesses. Rarely do swellings that are below the umbilicus convert into suppuration. But hemorrhage may be expected from the upper parts.) Suppuration is to be anticipated. It is a good sign. It is the worst sign. It is a good sign. It is best. |





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| 8 | Dropsy/oedema | Anasarca arising from acute disease especially those with fever and pain. | It is a bad sign/ fatal |
| | | Note: Most of the swellings start from the flanks and loin, but some start from the liver. | |
| | | If there is swelling in feet, supervened by diarrhea that lasts for a long time and neither relieves pain in the loin nor makes the abdomen soft, | The cause of edema is in the flanks. |
| 9 | Discolouration of extremities | If the head and extremities are cold whereas the abdomen and flanks are hot, | It is a bad sign. |
| | | If the whole body is equally hot given that the patient can turn around easily and can move quickly when raised up, | It is a good sign. |
| | | If there is heaviness in the body, including extremities when the body is elevated, | It is dangerous. |
| | | If there is bluish discolouration of nails and fingers along with heaviness in the body, | Immediate death is anticipated. |
| | | If there is black discolouration of extremities rather than bluish discolouration along with the above symptoms, | It is less dangerous. |
| 10 | Sleep | If black discolouration is accompanied by favourable symptoms, then the disease will convert to the deposition that follows the falling off of the blackened parts, | It is a sign of recovery. |
| | | When testicles are retracted upwards, they cause severe pain. | It indicates the danger of death. |
| | | Wakefulness during the daytime and sleeping during nighttime are normal sleep patterns. | It is a normal condition |
| 11 | Faeces | If it is altered from normal sleep pattern, | It is a bad sign. |
| | | Sleeping in the morning for the third part of the day | It is unfavourable |
| | | If the patient is getting no sleep either on day or night, | This is the worst of all. The inquiry should be made if any grief, anguish, or distress of mind follows insomnia. Or the patient is about to become delirious. |
| | | If faeces are soft, consistent, in a quality proportionate to ingested food and being passed at the habitual time, | This indicates a healthy lower abdomen. |
| | | If thin fluid like stool passed without noise, nor frequent and not in great quantity, | It is favourable (but if frequent, results in deprivation of sleep) |
| | | But if such stools are both frequent and large in quantity, | There is a chance of the patient passing into signs of diarrhea/deliquium animi. |
| | | Passage of stools should be according to the ingested food, i.e., 2-3 in the day, plentiful/ abundant in the morning and one at night. | If habitual, it is a good sign of health. |
| | | Thicker and yellowish faeces that is not-very foul smelling. | It indicates that the disease is tending to crisis. |
| | | Passage of roundworms in stools when the disease is tending to the crisis. | It is a good/favorable sign. |
| | | When the abdomen is soft and moderately distended throughout the disease | It is a favourable sign. |
| | | Watery, white, green, or red and frothy faeces, | These faeces are considered bad. |
| | | Stool that is of less quantity, viscid, white, greenish, and smooth | It is bad. |
| | | Black or fatty, bluish, or verdigris-green, or foul-smelling stool | It is worse than the above stool. All these types of stools are an indicator of the long duration of the illness. All are dangerous. |
| Stools that resemble dregs or those that are bilious or leaf-like, or black either passed singly or together. | It is dangerous, too. | | |
| Passage of flatulence without noise. | It is considered best. | | |
| Passage of flatulence over retention. | It is a good sign. | | |
| Flatulence does not pass unless he gives vent to the flatus spontaneously. | It indicates pain and delirium. | | |
| If there is a rumbling sound in the hypochondrium, especially if it passes off with faeces, urine, and wind, | It relieves the pain in the hypochondrium, and swelling, which is recent and not accompanied by inflammation. | | |
| If a rumbling noise comes down to the lower part of the abdomen, | It is a good sign. | | |

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| 12 | Urine sediments | Urine is accompanied by white, smooth, and consistent sediment throughout the disease until the disease comes to a crisis. | It is a good sign as it indicates freedom from danger and an illness of short duration. |
| | | If there is an occasional presence of white and smooth sediment in otherwise clear urine in lesser quantity, | It indicates danger, i.e., prolongation of disease. |
| | | If urine is reddish, sediment is smooth and homogenous, | Prolongation of disease will be more than in the above case but still not fatal. |
| | | Farinaceous sediment, leafy, white, and thin, furfuraceous | All are bad (Bad to worst from Farinaceous to Furfuraceous). |
| | | White clouds in urine. | It is a good sign. |
| | | Black clouds in urine. | It is a bad sign. |
| | | If urine is thin and yellow, | It indicates unconcocted disease matter. |
| | | If the patient holds the urine until it is concocted, | The disease will prolong. |
| | | Bad-smelling, watery, black, and thick urine | Most deadly/worst kind of urine. |
| | | Black urine among all kinds of urine in adults (male and female) and watery urine in children. | It is considered the worst. |
| | | Those who pass thin and unconcocted urine for a long time, if they have symptoms of convalescence (improvement in the previous symptoms). | Abscess formation in the structures below the diaphragm is expected. |
| | | Fatty sediments floating on the surface of urine. | Dreaded/bad sign as it indicates melting |
| | | All types of urine clouds should be given consideration: | |
| If there are white clouds pointing downwards, | It is a good sign. | | |
| Black clouds pointing upwards | It is a bad sign. | | |
| 13 | Vomiting | Vomiting consists of phlegm and bile mixed, neither very thick nor in great quantity. | It is considered good. |
| | | But those vomiting which are more unmixed, i.e., phlegm and bile, are not mixed in vomiting. | It is worse. |
| | | Leaf-like green, the bluish or black colour of vomitus | All of them are bad. |
| | | If a patient vomits all these above-mentioned colours of vomitus, | It is a fatal sign. |
| | | Among all colours, bluish vomitus with a bad smell. | It anticipates death. |
| The putrid and fetid smell of vomiting | It is considered a bad sign in all vomiting. | | |
| 14 | Expectoration | In all pains of lungs and sides, quick and easy expectoration with a certain degree of yellowish sputum. | It is a good sign. |
| | | If sputum is produced long after the commencement of pain and of yellow or red colour or if it occasions with much cough or is not strongly mixed, | It is a bad sign. |
| | | Intense yellow colour sputum | It is dangerous. |
| | | White and viscid sputum | It is not considered good. |
| | | Very green and frothy sputum | It is considered bad. |
| | | If greenish-black sputum is so intense that it appears black, | It is the most dangerous. |
| | | If there is no expectoration despite congestion in the lungs, | It is a bad sign. |
| | | If coryza and sneezing either precede or follow the disease of the lungs. | It is bad too. |
| | | However, sneezing in all diseases of the lungs, | A favourable symptom. |
| | | If there is the discharge of yellow sputum mixed with some amount of blood in pneumonia, | It is beneficial if it occurs at the initial stage, but if on the seventh day or still later, then it is less favourable. |
| If there is no relief in pain after expectoration, | It is considered bad. | | |
| All sputum that causes relief in pain | They are considered good. | | |



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| 15 | Pain in the lungs | <p>If pain in the lungs does not stop even after the expectoration of sputum, alvine evacuation, venesection, purgation, or any suitable regimen,</p> <p>The empyema is where bilious sputum is expectorated whether bilious sputum is expectorated separately or along with the other.</p> <p>If favourable symptoms appear, like the ease in respiration, pain, and expectoration of sputum. The whole body is equally warm and soft with no thirst; the urine, faeces, sleep, and sweat are all normal,</p> <p>If some of these symptoms are present and some are absent.</p> <p>If there are unfavourable symptoms like:</p> <p>Deep respiration, no relief in pain, expectoration of less sputum, excessive thirst, the body being warm unequally like the abdomen and sides are very hot, the forehead and extremities are cold, urine, faeces, sweat, and the sleep are also bad.</p> <p>If these above bad symptoms are accompanied by expectoration,</p> | <p>It indicates that abscess formation will take place.</p> <p>It is fatal (if abscess begins to advance after this sputum on the 7th day, death is expected on the 14th day) unless something favourable supervenes.</p> <p>The patient will not die.</p> <p>The patient will not survive longer than fourteen days.</p> <p>It is deadly, and survival no longer than fourteen days is expected.</p> <p>The patient will certainly die by the 14th day and either on the 9th or 11th day.</p> <p>Most of the other suppurations burst, some on the 20th, 30th, 40th, or 60th day.</p> |
| 16 | Suppuration and empyema | <p>To estimate the onset of abscess formation or suppuration, one should calculate from the day when fever and rigour start for the first time.</p> <p>If the patient feels heaviness at the site of pain, Timing of abscess rupture can be expected if the duration of the above symptoms is known.</p> <p>To examine whether the abscess is unilateral or bilateral:</p> <p>Turn the patient on one side and inquire: (a) if he has pain on another side, (b) if one side is warmer than the other.</p> <p>If lying on the sound side, he feels some weight hanging from above,</p> | <p>It indicates the onset of pus formation.</p> <p>(These symptoms help estimate the expected abscess rupture day, as mentioned in the above section).</p> <p>It is an unilateral abscess</p> <p>The abscess is on the opposite side of the area where weight is felt.</p> |
| 17 | Features of empyema | <p>Continuous fever that is of low grade during the day and high grade in the night follows a profuse sweating, desire to cough but no sputum production, sunken eyes, red spots on cheeks, bending of nails of hands, hotness of the finger's tips, oedema of feet, anorexia, small blisters over the body.</p> <p>The above-mentioned signs and symptoms, especially those that occur at the beginning of the disease, along with some difficulty in respiration</p> <p>The following symptoms can determine the time of rupture of the abscess:</p> <p>If pain is present at the beginning of the disease, dyspnea, cough, and ptyalism are severe,</p> <p>When all other symptoms are mild including pain, If the fever goes away on the same day that the abscess bursts,</p> <p>When there is no remission in fever, fever is recurrent with an exacerbation, increased thirst, loss of appetite, watery diarrhoea, green or bluish coloured or mucoid, and foamy/frothy expectoration.</p> <p>If some of the above symptoms present while some are absent,</p> <p>Every symptom must be taken into consideration for making the judgment, and this should be done in all other cases.</p> | <p>These signs and symptoms indicate chronic empyema.</p> <p>Indicates acute empyema.</p> <p>Rupture may be expected in twenty days or earlier.</p> <p>The rupture is delayed. The patient recovers readily, and the appetite and thirst become normal.</p> <p>When these symptoms are present, death is expected.</p> <p>Some patients die while others recover after a long interval.</p> |



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| 18 | Empyema (pockets of pus inside the body) | <p>When an abscess is formed around the ears following peri-pneumonia, or there is fistula formation following the accumulation of matter in the lower extremities. The following observations must be looked for in the above patients:</p> <p>If fever and pain persist along with abnormal expectation, stools are neither bilious nor free and unmixed, and urine is neither in more quantity nor has proper regular sediment,</p> <p>On the other hand, if all other favorable symptoms are present</p> <p>If there is a collection of phlegm in the hypochondrium,</p> <p>If hypochondria is free of pain, soft, sometimes dyspnea that has been present for a certain time ceases without any obvious cause,</p> <p>Formation of deposits in the legs after severe attacks of pneumonia</p> <p>Those deposits that occur in the legs when sputum undergo changes in the character of sputum i.e., swelling and pain accompanied when sputum changes from yellow to purulent and are expectorated freely.</p> <p>If there is no free expectation, urine does not contain proper sediment /normal sediment,</p> <p>If the abscess disappears, there is no expectation, but fever prevails,</p> <p>If an old age patient develops empyema following peri-pneumonic disease,</p> <p>If empyema is of another kind in younger patients,</p> <p>If empyema is treated by cautery or incision and the matter is pure, white, and not foul-smelling,</p> <p>If the matter of empyema is of bloody and dirty character,</p> | <p>The patient recovers.</p> <p>Abscess formation may take place.</p> <p>The abscess will form in the inferior part of the body.</p> <p>The abscess will form in the upper part.</p> <p>It is a favorable sign.</p> <p>The patient will recover.</p> <p>Irreversible damage to the leg or trouble to the patient may occur.</p> <p>It is a bad sign. As the patient may die or pass into a state of delirium.</p> <p>There is a great risk of death.</p> <p>The risk of death is much less.</p> <p>The patient recovers.</p> <p>Death is inevitable.</p> |
| 19 | Pain | <p>Pain accompanied by fever, which occurs about the loin and lower part, when it involves the diaphragm but spares the parts below the diaphragm</p> <p>If any bad symptom supervenes the case,</p> <p>If the disease is confined to the diaphragm with no other bad symptoms,</p> <p>When the bladder is hard and painful if associated with continuous fever</p> <p>In the case mentioned above, pain proceeding from the bladder alone is to kill the patient. At the time when there is decreased bowel movement, straining, and passage of hard stools.</p> <p>If there is neither a change in the character of urine nor the softness of the bladder, the fever continues, (This form of the disease occurs in children of the 7th to 15th year.)</p> | <p>This is fatal.</p> <p>There is no hope of recovery.</p> <p>Empyema is expected.</p> <p>This is considered fatal.</p> <p>The excretion of purulent urine with white and smooth sediments is a sign of relief.</p> <p>Death is expected.</p> |
| 20 | Fever | <p>Fever comes to a crisis on the same days on which recovery/ death of the patient usually occurs.</p> <p>Fevers that are mild and start with favorable symptoms.</p> <p>Fevers that are malignant and are associated with dangerous symptoms.</p> <p>The first class of fever ends on the fourth day, the second is protracted to the seventh day, the third to eleventh, the fourth to the fourteenth, the fifth to seventeenth, and the sixth to twentieth.</p> <p>After these, according to the same progression, the first period is thirty-four days, the second of forty days, and the third of sixty days.</p> <p>The fever in which crisis occurs in the shortest time is easy to judge as the difference lies only in the beginning of the fever.</p> <p>If the patient breathes freely, feels no pain, sleeps during the night, and other favorable symptoms are present,</p> <p>If the patient feels difficulty in respiration, deliriousness, insomnia, and other bad symptoms are present,</p> | <p>Cease either on the fourth day or earlier.</p> <p>Fatal and death occur on the fourth day or earlier.</p> <p>The duration of the disease in acute diseases ascends by four to twenty days. (But these fours cannot be calculated by whole days).</p> <p>At the initial stage of these fevers, it is difficult to determine the crisis of which fever will come after a long interval as the beginnings are very similar. But one should pay attention from the first day, observe further at every additional tetrad, and then not miss seeing how the disease will terminate.</p> <p>The patient will recover.</p> <p>Death is expected.</p> |





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| | | Continuous severe headache associated with fever when accompanied by any one of the deadly symptoms. | It is a fatal sign. |
| 21 | Headaches | If such a headache continues beyond 20 days without any bad symptoms, | Epistaxis or abscess in the inferior part may be anticipated. |
| | | If the headache is recent especially if the pain is felt at the temples and forehead, | Epistaxis or abscess may be expected. |
| | | If the patient is younger (less than 30 years), | Epistaxis is common. |
| | | If the patient is elderly, | Abscess formation is common. |
| 22 | Ear pain | Acute pain of the ear when associated with continuous and high-grade fever (Physicians should pay attention to these symptoms from the beginning of the disease because it is a dangerous spot). | Patients may pass into delirium and may die. |
| | | If this disease occurs in younger individuals, | Patients may die on the seventh day or earlier. |
| | | If this disease occurs in the older patient, | Death occurs much later as compared to younger patients. |
| | | In older patients, fever and delirium are less common. Instead, they may suffer from abscess formation, but if relapse occurs in the elderly. | It is fatal. |
| | | Younger individuals die before the suppuration in general. Only if they have white discharge from the ear with another favorable symptom. | The patient may recover. |
| 23 | Quinsy | Throat ulcers with fever when accompanied by some other bad symptoms. | The patient is in danger. |
| | | The quinsies neither appear in fauces nor the neck but are associated with severe pain and dyspnea. | It is most dangerous or fatal. As they induce suffocation on the 1 st , 2 nd , 3 rd , or 4 th day. |
| | | If they swelled up painfully or had intense redness in the throat, | They are fatal but more prolonged than the above case, provided the redness is great. |
| | | If the throat and neck both are red, | The disease is prolonged and the patient recovers, especially, if the neck and breast are also red and there is no diagnosis of erysipelas internally. |
| | | If neither erysipelas disappears on the day of crisis nor there is abscess formation on the outer side of the body, no pus in the expectoration, the patient is in good condition and is free of pain, | Death or relapse of erythema is apprehended. |
| | | Swelling and redness on the outer part of the body. | Less dangerous |
| | | But swelling and redness in the lung | Terminates in delirium or empyema |
| | | When the uvula is large and red, incision should not be made. (Instead, this swelling should be reduced by some other method.) | Inflammation and hemorrhage occur. |
| | | When the whole uvula is converted into an abscess called uva, the terminal or end part of the uvula (the coulemella) is large and round, but the upper part is thin. | It is safe to operate at this time. |
| It is better to open the bowels gently before proceeding to operation if there is time. | Then, the patient is not in danger of being suffocated. | | |

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| 24 Fever, deposit | If there is remission in fever (without any sign of resolution), but not on critical days, | Relapse of fever is anticipated. |
| | When any of the fevers are prolonged although the man exhibits symptoms of recovery and there is no longer pain from any swelling nor from any other visible cause, | A deposit with swelling and pain may be expected in some of the joints and not improbably in those below. (Such deposits occur more readily in patients under 30.) |
| | If the fever prolongs beyond 20 days, | One should suspect the formation of such a deposit. |
| | 1. In older individuals, prolonged and continuous type fever gets converted into a quartan fever. If it becomes intermittent and its paroxysms come on irregularly and in this form, it approaches the autumn season. | (Formation of the deposit is rare in older individuals unless the fever is much prolonged.) |
| | Deposits are more common in the winter and are most prolonged this season, but they do not return. | Deposit formation is expected. |
| | 2. If a patient with non-fatal fever experiences headache, the appearance of some dark thing before his eyes, and pain in the stomach, | Pain will be relieved with bilious vomiting. |
| | If rigors are also present in the above-mentioned condition and the inferior part of the hypochondrium is cold, | Vomiting is strongly expected. |
| | If the above-said patient eats or drinks anything in the winter season, | It will be abruptly vomited. |
| | In the above-said cases, when the pain begins on the first day | Pain is decreased on the fourth and fifth day and will be relieved on the seventh day. |
| | Most of the patients begin to have pain on the third day. | Pain is increased on the 5th day but is relieved by the 9th or 11th day. |
| | In patients in which pain starts on the fifth day | The crisis is expected to occur on the 14th day. |
| | 3. If a fever patient has a headache instead of having darkness in front of his eyes and has dimness of vision or flashes of light before his eyes. And, instead of pain at the pit (central part) of the stomach, the pain is at the hypochondrium along with fullness and stretching to either the left or right side without any pain or inflammation, | Epistaxis is expected rather than vomiting. |
| | If the above-mentioned patient is young, | Epistaxis is expected. |
| | If the age of the above patient is beyond 35, | Vomiting is expected. |
| | In acute fever in children, if the child is agitated, produces sound due to pain, and changes colour to green, bluish, or reddish. (All these complaints occur in young children up to 7 years; contrary to this, convulsions do not occur in older children and adults unless some worse symptoms precede, such as those occurring in a frenzy/hysteria.) | Convulsions may occur |

Section twenty-five is the closing remark of the treatise. It states that the physician must know the prognosis of the disease, like which patient will recover, who will die, in which patient the disease will prolong, and in which patient the disease will be of shorter duration. He must be able to judge the condition by his knowledge of previous patients seeing all the symptoms and comparing them to one another, such as urine, sputum, and coughing of pus and bile together. Physicians should also have knowledge of epidemic diseases and the constitution of seasons. He should be aware of particular signs and symptoms that are not ignored yearly and every season. Also, it is important to know those bad symptoms that Prognosticate the disease. Moreover, those good symptoms prognosticate recovery.

Conclusion

The definition of prognosis by Hippocrates, in this treatise, shows that prognosis is not simply about predicting the future but also appreciating the continuity of past, present, and future as sequences of connected events, or trajectories, that can be pieced together into a comprehensive story of the patient’s health. Prognosis is a more comprehensive term for Hippocrates. This treatise focuses on ways of diagnosis and prognosis of patients based on their signs and symptoms. It shows that Hippocrates mastered the art of predicting the course of a disease and the possible future outcomes of the disease. It also signifies

that correct interpretation of the symptoms helps the physician to select the appropriate therapeutic measure at the right time. This notion is highlighted when the author explains the right time for surgical intervention on inflamed uvula. Other than that, proficiency in prognosis helps physicians gain the patient's trust and a reputation for excellence. This treatise provides insight into Hippocrates' medical expertise and his prognostic approach toward disease management and healing.

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Conflict of Interest

None.

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