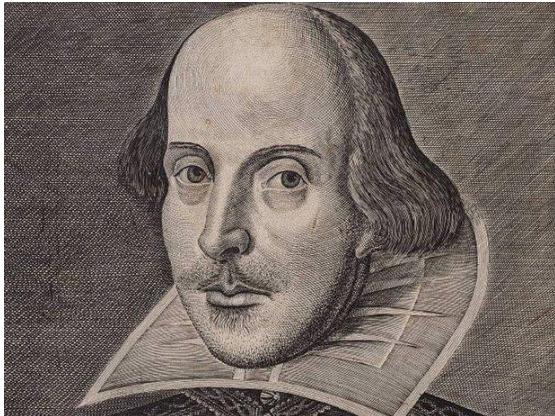


**University of the Third Age
Nillumbik Branch
25th June, 2020**



**Disease, medicines in
Shakespeare's plays**

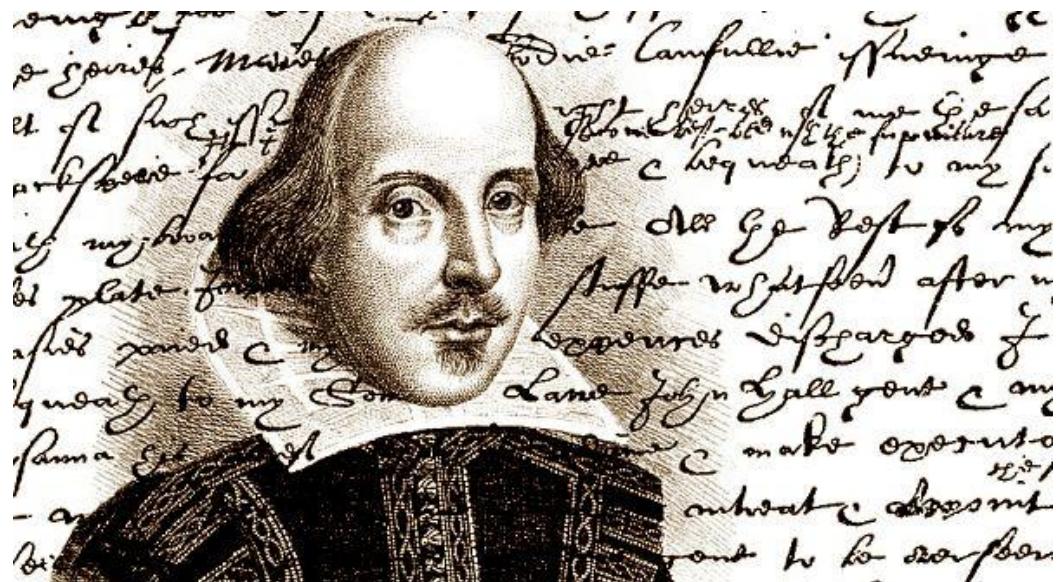


**Associate Professor
Louis Roller**



MONASH University
Pharmacy and Pharmaceutical Sciences

or

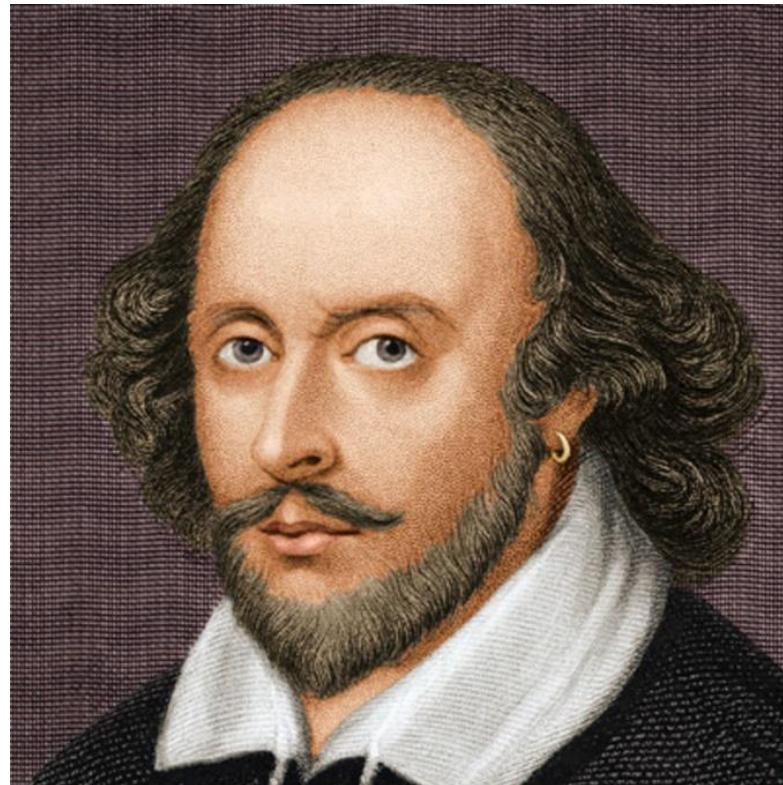


Much ado about medicines



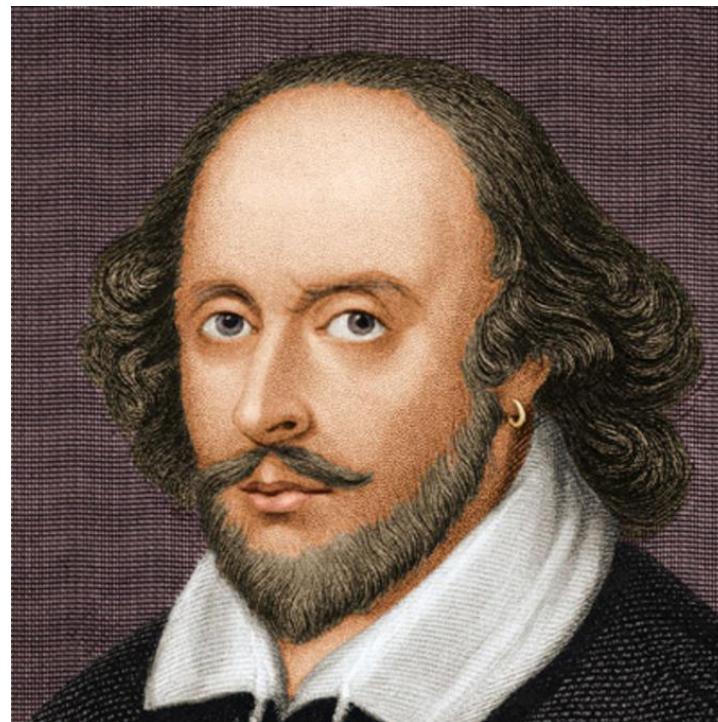
“The bard was well versed in human afflictions and their treatments”

Michael Cummings 2010



William Shakespeare was an English poet, playwright, and actor, widely regarded as the greatest writer in the English language and the world's pre-eminent dramatist.

He is often called England's national poet, and the "Bard of Avon".



Born: April 1564, Stratford-upon-Avon, England

Died: April 23, 1616, Stratford-upon-Avon, England

Spouse: Anne Hathaway (m.1582–1616)

Education: King Edward VI School, Stratford-upon-Avon

Children: Hamnet Shakespeare, Judith Quiney, Susanna Hall

Over the course of 20 years-

Controversies about whether Shakespeare wrote the plays

Modern shakespearean historians are now convinced that the evidence indicates that Shakespeare **DID** indeed write his works.



*Shakespeare
wrote plays that
capture the
complete range
of human
emotion and
conflict*



Shakespeare's ability to fathom the *dysfunctions of the human mind* has astounded theatregoers for more than four hundred years.

His portraits of *Hamlet*, *King Lear*, *Othello*, and *Macbeth* all attest to his genius for reaching into the depths of the soul and pulling out its pith for all to examine.

But Shakespeare also excelled at identifying and describing afflictions of the body, such as *scurvy*, *gout*, *epilepsy*, *rheumatism*, and *venereal disease*.

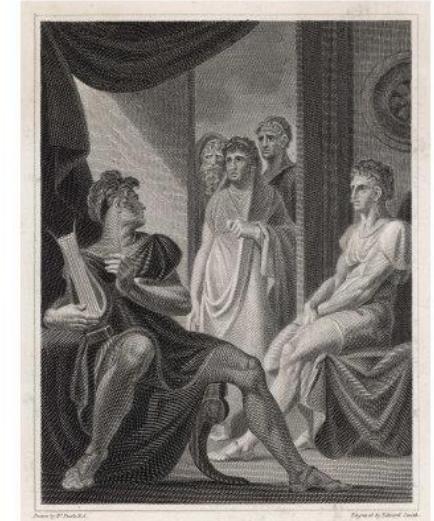
Each of these afflictions—and scores more—sicken the kings and commoners of his plays; they are the Furies of old come to torment Medieval and Renaissance England.

Shakespeare's knowledge of both ***physical*** and ***mental illness*** enabled him to enlighten audiences about the soma and psyche of a character and their failure to work in harmony.

Often, Shakespeare exhibits surprising insights into medicine. In his ***37 plays***, Shakespeare mentions practically all the diseases and medicines that were known in the ***Elizabethan and Jacobean times***.

In one single scene, *Troilus and Cressida* (Act V, Scene i), there is a long list of diseases that people were subject to in.

“Now the rotten diseases of the south, the guts-gripping ruptures, catarrhs, loads o’ gravel I’ the back lethargies, cold palsies, , raw eyes, dirt-rotten livers, wheezing lungs, bladders full of imposthume, (abscess), sciaticas, limekilns I’ th’ palm (arthritis), incurable bone-ache, and the rivelled free-simple (permanent ownership) of the tetter (eruption)”.



In *Henry IV Part II*, Northumberland—down with a fever—describes the principles behind *immunisation* when he receives bad news from the battlefield:

*“In poison there is physic; and these news,
Having been well, that would have made me
sick,
Being sick, have in some measure made me
well”*





© HULTON GETTY

In *The Winter's Tale*, Camillo presents a revolutionary concept: that a person can carry and spread illness even though he or she remains disease free:

*"There is a sickness
Which puts some of us in distemper, but
I cannot name the disease; and it is caught
Of you that yet are well."*



In *Richard III*, after Hastings informs Richard that the king languishes with a fatal illness, Shakespeare calls attention to the importance of nutrition in the following lines spoken by Richard:

*"O, he [the king] hath kept an evil diet long, /
And overmuch consumed his royal person"*



Shakespeare referred to **depression** (melancholia) in many of his plays.

For example in the opening lines of the ***Merchant of Venice***, Antonio, the merchant is melancholic; he does not know why and is unable to shake off the mood:

*“In sooth, I know not why I am so sad. It wearies me; you say it wearies you;
But how I caught it, found it, or came by it,
What stuff ‘tis made of, whereof it is born,
I am to learn;
And such a want-wit sadness makes of me
That I have much ado to know myself”*

Beyondblue defines depression :

“Depression affects how people feel about themselves.

They may lose interest in work, hobbies, and doing things they normally enjoy.

They may lack energy, have difficulty sleeping or sleep more than usual.

Some people feel irritable and some find it hard to concentrate.

Depression makes life more difficult to manage from day to day.”





In *Pericles, Prince of Athens*, Shakespeare demonstrates an awareness of *altered states* of consciousness that mimic death. In the key passage, Cerimon opens Thaisa's coffin, observes

*"How fresh" she looks, and remarks,
Death may usurp on nature many hours,
And yet the fire of life kindle again
The o'erpress'd spirits. I heard of an Egyptian
That had nine hours lien dead,
Who was by good appliance recovered."*

Cerimon then revives Thaisa, noting,

"She hath not been entranced above five hours"



PERICLES, PRINCE OF TYRE.

Act III.—Scene 2.

London in Shakespeare's time



Rubbish littered streets.

Residents emptied chamber pots out of windows.

Brothels incubated syphilis.

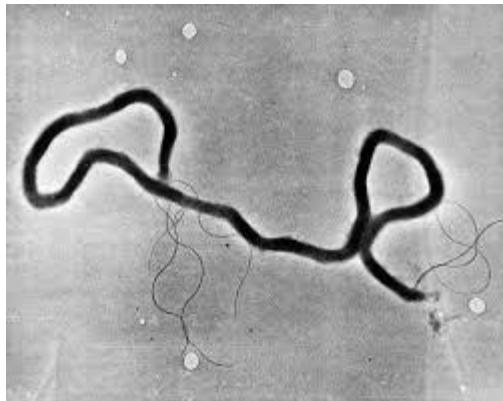
Dung clogged gutters and waterways.

Flies and **rodents** carried **bacteria** and **viruses** from one section of the city to another.

Hygiene was almost nonexistent.

Even the **queen** bathed only once a month.





Treponema pallidum



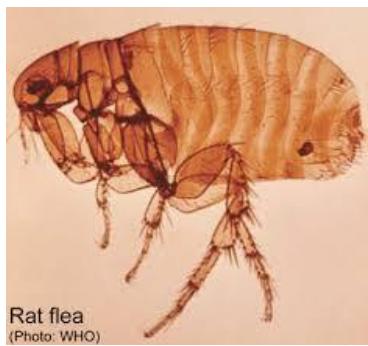
The ***London*** of Shakespeare was dirty, raw, and noxious.

When ***plague*** ravaged the city between 1592 and 1603, Shakespeare witnessed human suffering on a vast scale.

The infected burned with incredibly fever, shivered incessantly, and suffered bouts of vomiting, insomnia, and delirium.

Spread from rats to humans by fleas, ***plague*** could manifest itself in three forms:

- ***bubonic plague***, which caused painful swellings (buboës) in the lymph nodes of the armpits and groin
- ***pneumonic plague***, which filled the lungs with fluid
- ***septicemic plague***, which poisoned the bloodstream.



Sometimes one form of the disease killed by itself; at other times, it progressed into another of the forms before claiming a victim.

Together, these three manifestations of plague were known as the ***Black Death*** because of the livid hue of corpses caused by subcutaneous haemorrhaging.

As the bodies accumulated, and the rats and fleas multiplied outbreaks exponentially, Shakespeare saw it all. At his writing table, death sat at his elbow.

On his walks through streets and byways, it saluted him with the flopping arms of wagon-borne corpses.

Physicians were powerless against the disease.

In fact, one of the most distinguished physicians of the age, ***William Gilbert***, physician to Queen Elizabeth I and, after her death, to King James I, died of plague in 1603.



William Gilbert 1544-1603, physician to Queen Elizabeth I

The ***Black Death*** was one of the most devastating pandemics in human history, resulting in the deaths of an estimated 75 to 200 million people in Eurasia and peaking in Europe in the years 1346–1353.

Analysis of DNA from people in northern and southern Europe recently published indicate that the pathogen responsible was the *Yersinia pestis* bacterium, resulting in several forms of plague including the bubonic plague.

The ***Black Death*** is thought to have originated in the arid plains of Central Asia, where it then travelled along the Silk Road, reaching Crimea by 1343.

From there, it was most likely carried by Oriental rat fleas living on the black rats that were regular passengers on merchant ships.

Spreading throughout the Mediterranean and Europe, the ***Black Death*** is estimated to have killed 30–60% of Europe's total population.

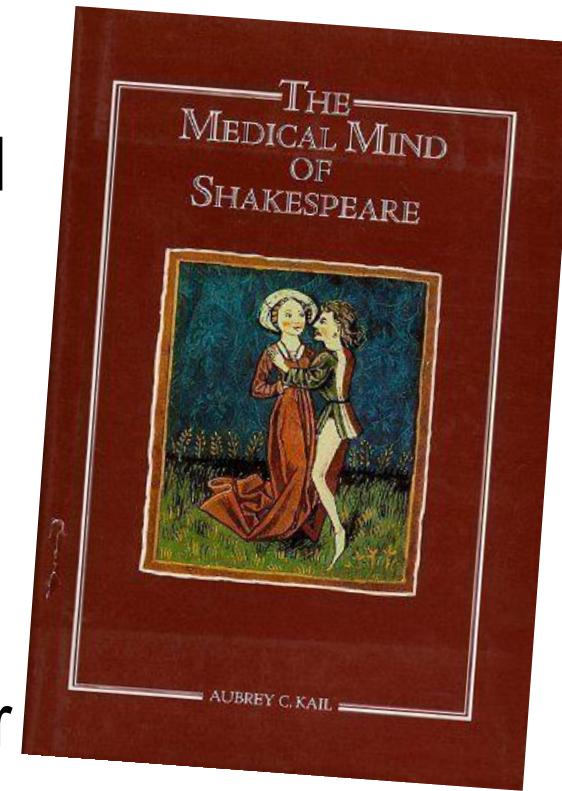
In total, the ***plague*** may have reduced the world population from an estimated 450 million down to 350–375 million in the 14th century.

The world population as a whole did not recover to pre-plague levels until the 17th century.

The plague recurred occasionally in Europe until the 19th century.

In *The Medical Mind of Shakespeare*, Aubrey C. Kail (1986) describes efforts to contain plague: "Special officials called '**searchers**' were appointed, whose duty it was to go into houses and search out plague victims.

They were paid a higher rate if the victims were found dead." Kail says the practice of using searchers, along with the imposition of quarantines, provided Shakespeare a plausible explanation for a significant development in one of his most popular plays.



The use of the word '**'searcher'**' in this sense appeared in 1592 in ***Romeo and Juliet.***

Friar John, suspected of being in an infected house, was shut in by the 'searchers,' and was thus prevented from carrying the all-important message from Friar Lawrence to Romeo.

No messenger could be found to return the letter to Friar Lawrence, so afraid were the citizens of Verona of the infection.

The communications breakdown precipitated events leading to the tragic ending of the play.

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Another common affliction in Shakespeare's time was venereal disease—in particular, ***syphilis***.

Although the crew of Christopher Columbus is sometimes blamed for carrying syphilis from the New World to Europe, the disease probably existed in Europe long before Columbus set sail for the first time.

However, it was apparently mistaken for leprosy.

Shakespeare refers to the illness as ***pox*** in ***10*** of his plays.

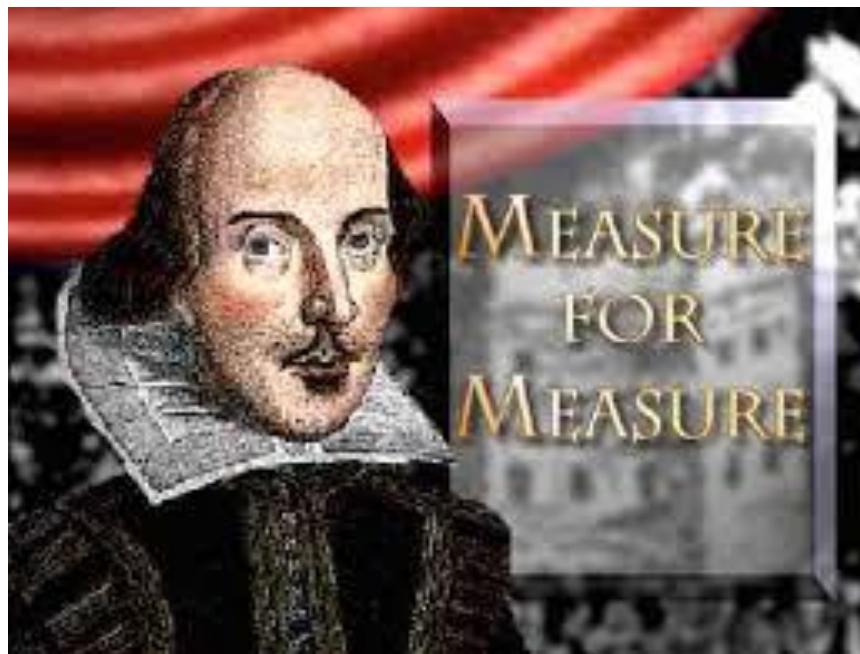
Of special interest is ***Measure for Measure***, in which three citizens of Vienna openly discuss venereal disease.



One of them, Lucio, upon seeing a brothel madam approaching, says,

“I have purchased many diseases under her roof”

Shakespeare first staged the play in 1604, the year after the government closed the brothels of London.



Besides ***plague, venereal disease***, and other afflictions of the body, ***mental illness*** and its symptoms—including *depression, obsessive-compulsive disorder, and recitations of gibberish*—were commonplace in Shakespearean London.

In fact, because treatment was virtually nonexistent for the mentally disabled and because most of the mentally disturbed roamed freely for lack of institutional care, London and other European cities teemed with the eccentric, the paranoid, the schizophrenic.

When Shakespeare ventured forth on the streets of London, he entered an alfresco asylum.

All he had to do was etch images in his memory and he had raw material for his plays.

In his dramas, both mental and physical illness sometimes inhabit the same character at the same time. For example, in *Richard III*, Richard exhibits the symptoms of *kyphosis* (hunched back) and psychopathy (asocial and amoral behaviour), which shape him into a grotesque killing machine.

In the opening lines of the play, Richard soliloquises on his appearance and his mindset:



*“But I, that am not shaped for sportive tricks,
Nor made to court an amorous looking-glass;
I, that am rudely stamp'd, and want love's majesty
To strut before a wanton ambling nymph;
I, that am curtail'd of this fair proportion,
Cheated of feature by dissembling nature,
Deformed, unfinish'd, sent before my time
Into this breathing world, scarce half made up,
And that so lamely and unfashionable
That dogs bark at me as I halt by them;
Why, I, in this weak piping time of peace,
Have no delight to pass away the time,
Unless to spy my shadow in the sun
And descant on mine own deformity:
And therefore, since I cannot prove a lover,
To entertain these fair well-spoken days,
I am determined to prove a villain
And hate the idle pleasures of these days.
Plots have I laid, inductions dangerous,
By drunken prophecies, libels and dreams”.*



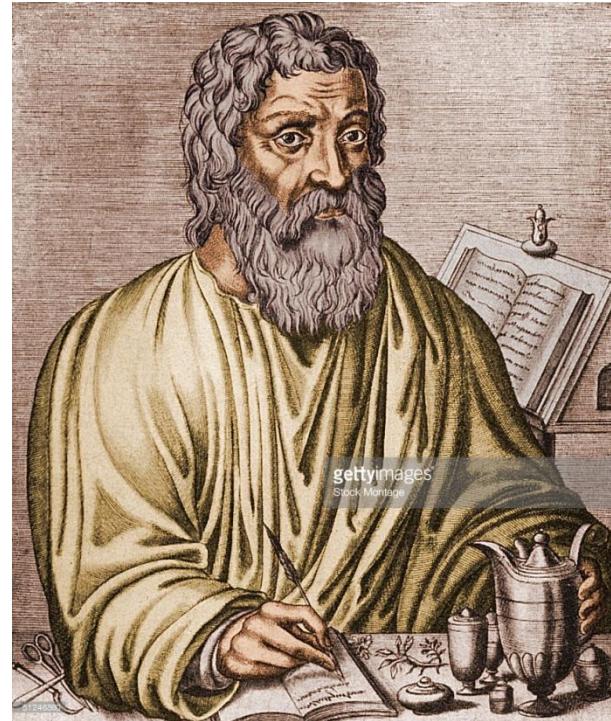
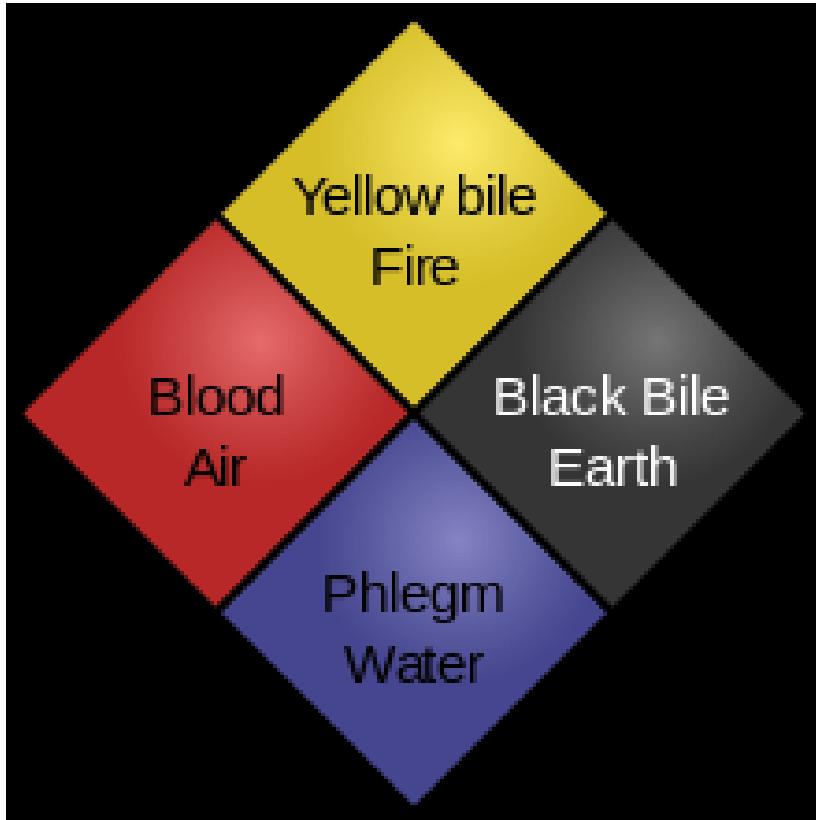
For ***modern audiences***, Shakespeare is a window on human affliction and its treatments in the late 1500's and early 1600's, an age when medical science was an oxymoron and gleeful germs had the run of both the king's household and the peasant's hovel. Some people of Shakespeare's time believed disease was a punishment for sinful behaviour.

Others thought it resulted from the movement of the stars and the planets.

Whatever the cause, virtually everyone agreed that it triggered illness by creating an intolerable imbalance in four vital fluids in the body: ***blood, phlegm, black bile, and yellow bile.***

Called "***humours***" (from a Latin word for liquids), these fluids controlled health and human behaviour.

Greek physician **Hippocrates** (460–370 BCE) who developed it into a medical theory. He believed certain human moods, emotions and behaviours were caused by an excess or lack of body fluids (called "humours"): blood, yellow bile, black bile, and phlegm.



Persons in whom ***blood*** was the dominant humour were kind, loving, merry, enthusiastic, and passionate.

Those ruled by ***phlegm*** were sluggish, apathetic, cowardly, and dull-witted.

Persons dominated by ***yellow bile*** were stubborn, impatient, vengeful, and easy to anger, and those dominated by ***black bile*** were melancholic, depressed, irritable, brooding, and cynical.

When the body produced ***too much*** or ***too little*** of a humour, or if the humour altered its consistency or ventured beyond its normal location in the body, illness resulted.

Diagnosis consisted in one or more of the following: observing symptoms such as:

- fever
- headache
- evaluating urine for discolouration
- frothing
- plotting astrological charts
- checking the pulse for the rate and strength of the heartbeat and for rhythm abnormalities.

Death by ***poisoning*** was popular on the stage.
Romeo knew exactly what he wanted when he asked
a poor apothecary for a powerful poison (Romeo and
Juliet, Vi, 59):

*“A dram of poison, such soon-speeding gear
As will disperse itself through all the veins
That the life-weary taker may fall dead,
And that the trunk may be discharg’d of breath
As violently as hasty powder fir’d
Doth hurry from the fatal cannon’s womb.”*

In *Hamlet, Prince of Denmark*, Hamlet underscores the importance of the heartbeat as a measure of well-being when he tells Gertrude,

*"My pulse, as yours, doth temperately keep time,
And makes as healthful music".*



Treatments to restore the proper balance of ***humours*** consisted mainly in ridding the body of ***humoural excess*** by *blood-letting* (phlebotomy), *vomiting* (emesis), and *cleansing the bowels* (purging).

Blood-letting, a frequent practice, required opening a vein or applying leeches.

The other treatments required administration of concoctions to induce vomiting spells or bowel movements.

In the latter case, a patient could choose from oral laxatives or enemas.



Medical practitioners also used a variety of preparations—with ingredients ranging from animal dung and ground gemstones (including emeralds, sapphires, garnets, and topaz) to *liquorice, mint, rosemary, and basil*—to heal the sick.

Some preparations, such as herbal remedies, occasionally worked (placebo effect?)

Patients themselves often **prayed** for a miraculous cure, touched their bodies with the relics of saints, or went on pilgrimages.

A few turned to religious rites to rid the body of a demon.



Persons offering preventative, diagnostic, and therapeutic services included

- *well educated physicians*
- *minimally educated surgeons*
- *Barbers*
- *Herbalists*
- *Apothecaries*
- *Exorcists*
- *Astrologers*
- *Sorcerers*
- *Soothsayers*
- *do-it yourself healers.*

At **barber shops**, patrons could get a haircut, then have a tooth extracted.

They could also undergo blood-letting, a service advertised by a spiral red stripe on the barber pole outside the typical barber shop.

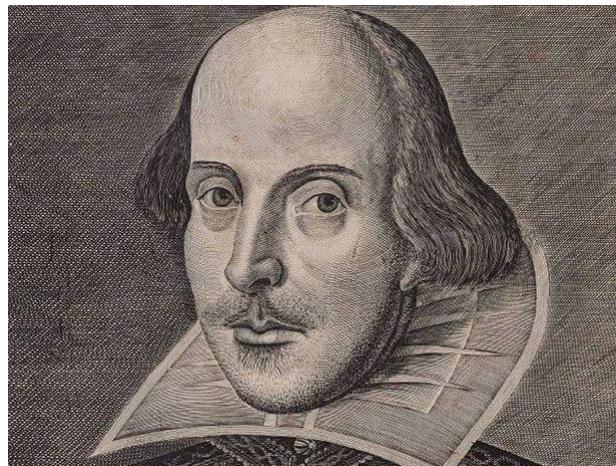
The striped barber pole survives to the present day as a symbol of the tonsorial profession.



The afflictions in Shakespeare's plays not only help to drive the plots and motivate the characters, but they also educate modern audiences and historians about health in Elizabethan and Jacobean England



Some medical afflictions in Shakespeare's plays



Ague (1) **Fever** usually caused by malaria. The victim may be cold one moment and hot the next. Bouts of sweating are commonplace.

(2) **Fever** characterised by chills and shivering, as well as pain in the joints and bones. Shakespeare refers to ague in *nine* plays. In ***Julius Caesar***, Caesar tells Caius Ligarius:

“Caesar was ne’er so much your enemy as that same ague which hath made you lean”

In *King John*, Constance—lamenting the fate of her son—says:

*"But now will canker-sorrow eat my bud
And chase the native beauty from his cheek
And he will look as hollow as a ghost,
As dim and meagre as an ague's fit."*

References to ague also occur in

Henry VIII, King Lear, Macbeth, The Merchant of Venice, Richard II, The Tempest, and Troilus and Cressida.



The ides of March- Julius Caesar
(15 March 44 BCE)

Alcoholism

Excessive consumption of alcoholic beverages that can result in psychological and nutritional disorders, liver disease, and death.



Although Shakespeare does not use the word alcoholism, it is clear that certain characters in his plays exhibit symptoms of the disease, most notably Prince Hal's drinking companions in ***Henry IV Part I*** and ***Henry IV Part II***.

Bardolph, for example, suffers from a bulbous red nose brought on by drinking malmsey, a Madeira wine.

Alcoholism

In the same two plays, Sir John Falstaff worships sack, a dry white wine, and even recommends addiction to it in the following prose passage:

"If I had a thousand sons, the first humane principle

*I would teach them should be,
to forswear thin potations and to
addict themselves to sack"*

In **Henry V**, Falstaff cries out for sack on his deathbed.





Anxiety Apprehension and uneasiness; nervousness. Anxiety is a normal reaction if the cause of the uneasiness poses a threat of physical harm, embarrassment, financial reversal, etc.

It is an abnormal reaction if the cause is harmless but perceived as harmful or if the symptoms are exaggerated out of proportion to the threat.

Among the possible symptoms are sweating, rapid pulse, and trembling.

ANXIETY overtakes *Macbeth* after the first murderer tells him that although Banquo lies dead in a ditch his son Fleance has escaped.

Macbeth reacts with the following alliterative reply reflecting his anxiety:

*"But now I am cabin'd, cribb'd, confined, bound
To saucy doubts and fears.*

But Banquo's safe?"



BED-WETTING Involuntary and habitual urination while sleeping. Bed-wetting is a form of enuresis, a general medical term for inability to control urination whether awake or asleep. Shakespeare alludes to the condition in ***All's Well That Ends Well*** when Parolles recites this prose passage:

"For he will be swine-drunk; and in his sleep he does little harm, save to his bed-clothes about him; but they know his conditions and lay him in straw"



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www.alamy.com

BIRTHMARK (NEVUS) Skin defect, such as a blotch, occurring at birth. One common type of birthmark is portwine stain (nevus flammeus), a cluster of blood vessels that appear as a reddish-purple stain.

In *King John*, Constance praises her son, Arthur, as being fair-skinned and blessed with good looks, but notes that:

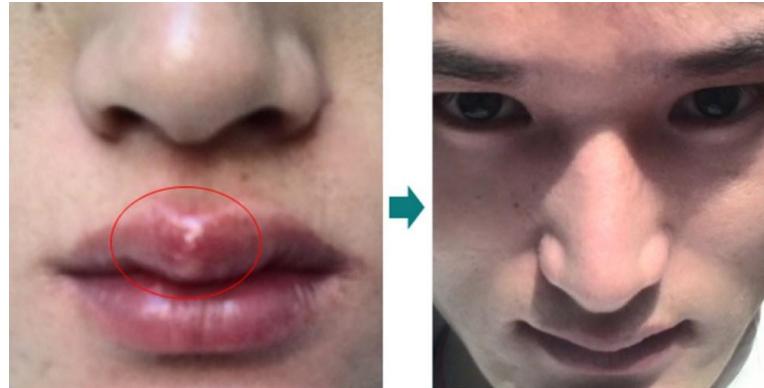
*"If thou . . . wert grim,
Ugly and slanderous to thy mother's womb
Full of unpleasing blots and sightless stains,
Lame, foolish, crooked, swart, prodigious, 48
Patch'd with foul moles and eye-offending
marks,
I would not care, I then would be content
For then I should not love thee."*

BIRTHMARK (NEVUS)



BLAIN Painful skin swelling or sore. In a soliloquy in *Timon of Athens*, Timon curses all Athenians, wishing that

"itches, blains, / Sow all the Athenian bosoms"



BOIL OR FARUNCLE) Skin abscess characterised by swelling and pain.

Staphylococcus germs cause the formation of the pus.
In ***Coriolanus***, Marcius (Coriolanus) curses enemies, saying,

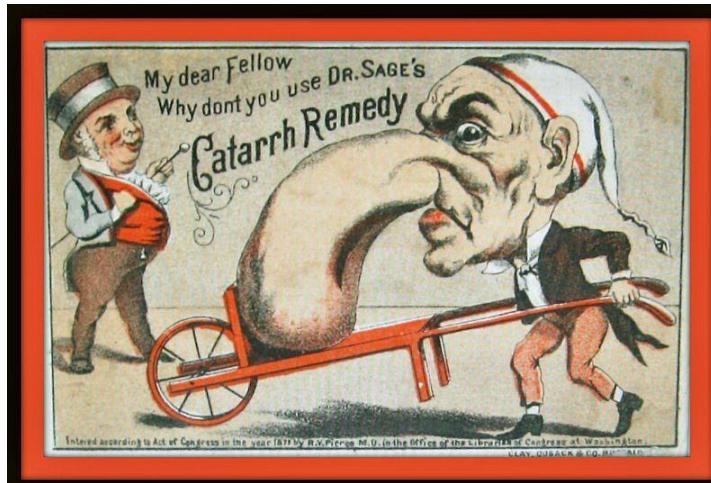
*“Boils and plagues
Plaster you o'er, that you may be abhor'd
Further than seen and one infect another
Against the wind a mile!” (1.4.41-44)*



CATARRH Inflammation of mucous membranes, mainly those of the nose and throat, causing increased secretion of mucous.

In *Troilus and Cressida*, Thersites curses Patroclus, saying,

“Now, the rotten diseases of the south, the guts-gripping, ruptures, catarrhs . . . take and take again such preposterous discoveries”.



CRAMPS Abdominal spasms or painful muscle contractions. In *The Tempest*, when Caliban curses Prospero, Prospero replies with a curse of his own:

*"To-night that shalt have cramps / Side-stitches
that shall pen they breath up".*

A reference to cramps also appears in Shakespeare's long poem ***The Rape of Lucrece***:

*"The aged man that coffers-up his gold / Is plagued
with cramps and gouts and painful fits" .*

DEMENTIA Irreversible mental deterioration. Short-term memory loss, irritability, and confusion are among the symptoms of the illness.

Alzheimer's disease and ***Pick's disease*** are specific varieties of the affliction.

Although the symptoms of Pick's disease are similar to those of Alzheimer's disease, the former generally occurs in middle age.

King Lear, obviously suffers from a form of dementia. His erratic behavior and raving outbursts attest to his mental breakdown.

However, because he never completely loses touch with reality, he is able to acknowledge his shortcomings before the play ends.

EMACIATION Condition in which the body is severely underweight as a result of disease or malnutrition.

In *Richard II*, Shakespeare alludes to emaciation in an exchange between King Richard and John of Gaunt in which the latter uses a pun on his name to describe his wasted appearance:

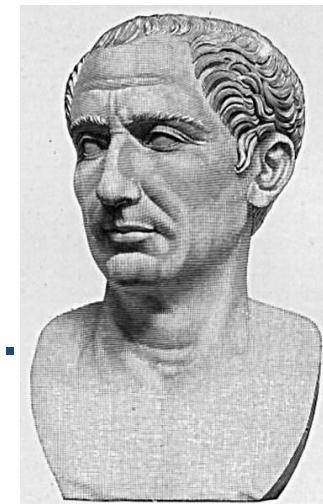
King “*What comfort, man? how is't with aged Gaunt?*”

John “*O how that name befits my composition!*”
 *Old Gaunt indeed, and gaunt in being old:
Within me grief hath kept a tedious fast;
And who abstains from meat that is not gaunt?
For sleeping England long time have I watch'd;
Watching breeds leanness, leanness is all
gaunt.* (2.1.75-81)

EPILEPSY Disorder of the brain and nervous system characterised by minor (petit mal) and major (grand mal) seizures. A petit mal seizure causes a brief spell of unconsciousness; a grand mal seizure causes a spell of convulsions, loss of consciousness, and loss of motor control.

In ***Julius Caesar***, Cassius—in describing the great Caesar as a mere mortal, tells Brutus:

“He had a fever when he was in Spain,
And when the fit was on him, I did mark
How he did shake: 'tis true, this god did shake”.





FIT Sudden attack or spell characterised by convulsions (as in epilepsy), coughing, or other uncontrollable symptoms; an emotional outburst.

In *Macbeth*, the ghost of Banquo sits in Macbeth's place as a banquet commences.

Only Macbeth sees it.

After he addresses it, Lady Macbeth explains his odd behaviour to the guests this way:

*"Sit, worthy friends: my lord is often thus,
And hath been from his youth: pray you, keep
seat;
The fit is momentary; upon a thought
He will again be well."*

GOUT Acute recurring arthritis that inflames and swells joints, particularly those in the feet and hands, causing severe pain.

The condition develops when a congenital flaw results in an imbalance of uric acid in the body. The acid crystallises as sodium urate, and the crystals lodge in joints.

A commonly affected site is the **joint** of the **big toe**. References to gout occur in

As You Like It, Cymbeline,
Henry IV Part II, Measure for
Measure, and
The Two Noble Kinsmen.



HALLUCINATION Unreal image or sound that the mind perceives as real; illusion, fantasy; apparition; phantasm. Hallucinations, or what resemble hallucinations, are important events in Shakespeare's plays.

Macbeth presents one of the most famous depictions of a hallucination in all of literature, when Macbeth says:

*"Is this a dagger which I see before me,
The handle toward my hand? Come, let me
clutch thee.*

*I have thee not, and yet I see thee still.
Art thou not, fatal vision, sensible
To feeling as to sight? or art thou but
A dagger of the mind, a false creation,
Proceeding from the heat-oppressed brain?"*

HEADACHE Throbbing pain in the head resulting from a variety of causes.

In *King John*, young Arthur—pleading with Hubert for mercy—recalls a time when he comforted Hubert, who was sick with a headache:

“Have you the heart? When your head did but ache,

I knit my handercher about your brows,

The best I had, a princess wrought it me,

And I did never ask it you again;

And with my hand at midnight held your head,

And like the watchful minutes to the hour,

Still and anon cheer'd up the heavy time,

Saying, "What lack you?" and 'Where lies your grief?"

HYSTERIA Condition characterised by anxiety, excessive display of emotion (crying, weeping or laughing, for example), or symptoms of organ malfunction or breakdown (such as deafness and blindness) even though there is no physical cause to explain the symptoms.

In *Hamlet, Prince of Denmark*, Ophelia

“divided from herself”

as Claudius observes, over the death of her father and the departure



INSANITY Mental derangement; madness; inability to think rationally or responsibly. Illnesses in which insanity may develop as a symptom include ***Alzheimer's disease, dementia, senility, psychosis, schizophrenia, and paranoia.***

Insanity—or what appears to be insanity—plays a significant role in many of Shakespeare plays, notably *Hamlet*, *King Lear*, and ***Macbeth***.

In ***Hamlet***, a key question throughout the play is whether Hamlet is really insane or merely pretending to be—or, as Hamlet says in Act I, Scene V, putting on an “***antic disposition.***”

INSANITY

In *King Lear*, the old king exhibits what appear to be symptoms of dementia, senility, and possibly Alzheimer's disease, although he is not so far gone that he cannot see the folly of his ways.



In *Macbeth*, gnawing guilt drives Lady Macbeth insane, causing her to sleepwalk and repeatedly wash her hands to cleanse them of her guilt.

INSOMNIA Chronic inability to sleep.

In *Macbeth*, the First Witch promises to inflict insomnia on a sailor, saying,

"Sleep shall neither night nor day / Hang upon his pent-house lid"



INSOMNIA Chronic inability to sleep.

After murdering King Duncan, Macbeth tells Lady Macbeth,

*"Methought I heard a voice cry 'Sleep no more!
Macbeth does murder sleep', the innocent sleep,
Sleep that knits up the ravell'd sleeve of care,
The death of each day's life, sore labour's bath,
Balm of hurt minds, great nature's second course,
Chief nourisher in life's feast.*

When Macbeth confides to Lady Macbeth

"Strange things I have in my head," she replies,
"You lack the season of all natures, sleep"

LEPROSY Mildly infectious bacterial disease of the skin, nerves, cartilage, bone and other body parts. Skin lesions, oedema, eye inflammation (keratitis or iritis), and nerve impairment are among the symptoms. Queen Margaret refers to the disease in ***Henry VI Part II:***

*“Be woe for me, more wretched than he is.
What, dost thou turn away and hide thy face?
I am no loathsome leper; look on me.”*

Other references to leprosy occur in ***Antony and Cleopatra*** and ***Timon of Athens***.



POX The word *pox*, for *syphilis*, occurs frequently in Shakespeare's plays, attesting to the widespread occurrence of the illness in Elizabethan England. Characters in Shakespeare's plays use *pox* mainly as a brief curse, like that uttered by Bertram against Captain Dumain

A pox upon him"

in *All's Well That Ends Well*



References to pox also occur in *Cymbeline*, *Henry IV Part I*, *Henry IV Part II*, *Henry V*, *Hamlet*, *Love's Labour's Lost*, *Measure for Measure*, *Othello*, and *Pericles, Prince of Athens*.

RHEUMATISM Catch-all laymen's term for aches, pains, swelling, stiffness and inflammation of the joints, muscles, and connective tissues.

In *The Merry Wives of Windsor*, Ann Page—in complimenting Sir Hugh Evans—describes the weather

“as conducive to rheumatism

*And youthful still! in your doublet and hose
this raw rheumatic day!*



RHEUMATISM

In *Henry IV Part II*, Mistress Quickly uses *rheumatic* in a simile when she addresses Falstaff and Doll Tearsheet:

"By my troth, this is the old fashion; you two never meet but you fall to some discord: you are both, i' good truth, as rheumatic as two dry toasts; you cannot one bear with another's confirmities"

SCURVY Disease resulting from lack of vitamin C (ascorbic acid) in the diet. Victims suffer anaemia, weakness, swollen gums, and bleeding beneath the skin.

Shakespeare uses scurvy almost exclusively as an adjective, as in *Twelfth Night*

"Thou are but a scurvy fellow"

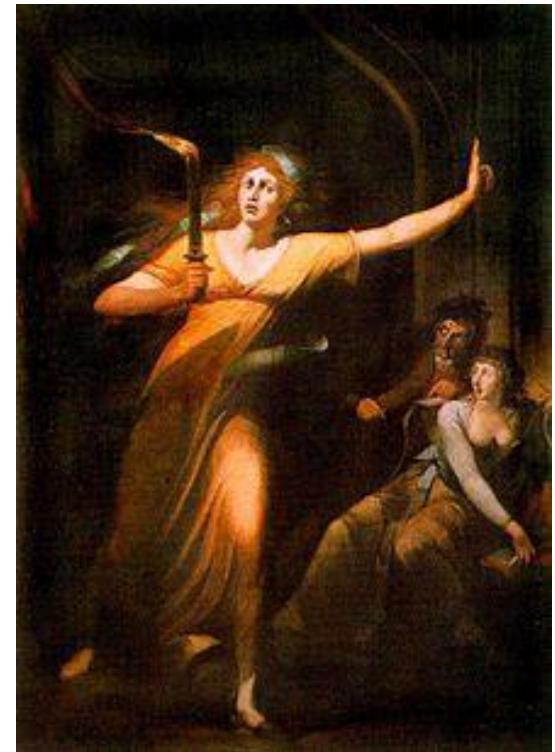
References to scurvy also appear in *All's Well That Ends Well*, *King Lear*, *Romeo and Juliet*, *The Tempest*, *Othello*, *Troilus and Cressida*, and *The Two Noble Kinsmen*.



SLEEPWALKING

In Act V, Scene I, of *Macbeth*, a gentlewoman reports to a doctor that Lady Macbeth has been sleep walking:

"Since his majesty went into the field, I have seen her rise from her bed, throw her night-gown upon her, unlock her closet, take forth paper, fold it, write upon't, read it, afterwards seal it, and again return to bed; yet all this while in a most fast sleep"



Drugs,herbs and poisons



Many plants, metals and products were used. These are all referred to many times over in Shakespeare's plays.

They include: **opium** (*Papaver somniflorum*-source of morphine) for pain, **mercury** in a poultice for syphilis, **aconite** (or Monkhood contains the poisonous alkaloid aconitine) a poison used to tip arrows and as a treatment of fever, plus hundreds of others: **haddock, hemlock, nettles, cuckoo-flowers, darnels, colocynth**, the dreaded **mandrake** (*Mandragora officinarum*- contains hallucinogenic agents- used in those times by witches and for many 'medicinal' purposes and was given many magical properties due it the human-like shape of the root).

A **mandrake** is the root of a plant, historically derived either from plants of the genus *Mandragora* found in the Mediterranean region, or from other species, such as *Bryonia alba*, the English mandrake, which have similar properties. The plants from which the root is obtained are also called "mandrakes".



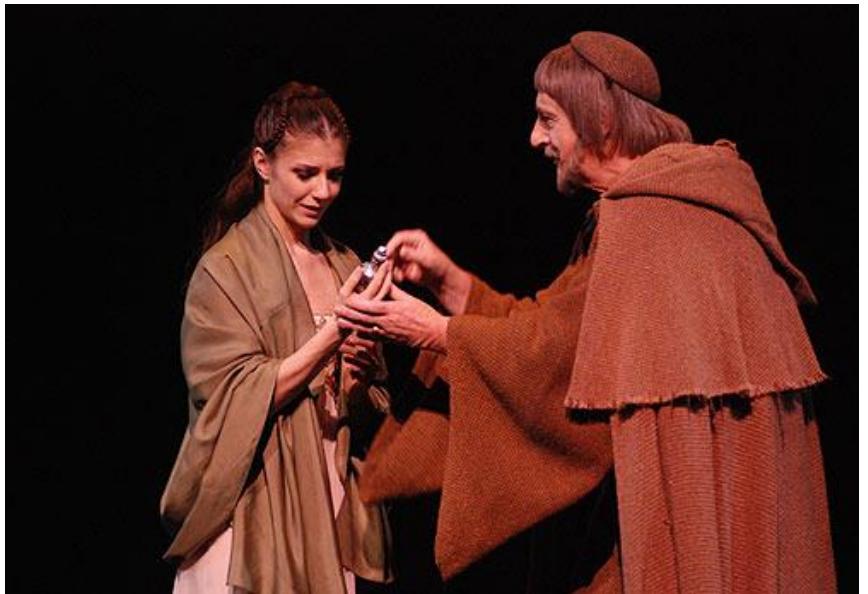
The root of the ***mandrake*** is forked and the whole plant was vaguely supposed to resemble the human form and to utter a shriek when pulled out of the earth
This is referred to in ***Romeo and Juliet***

Juliet. “*And shrieks like the mandrakes torn out of the earth,
That living mortals, hearing them, run mad,*”

As a hypnotic, Iago mentions it in Othello, III, iii, 334)
“*Not poppy nor mandragor,
Not all the drowsy syrups of the world,
Shall ever medicine thee to that sweet sleep
Which thou owed'st yesterday.*”

Friar Lawrence:

*“O, mickle is the powerful grace
That lies in plants, herbs, stones, and their true qualities ;
For naught so vile that on the earth does live
But to the earth some special good doth give...”*



Romeo and Juliet

Elizabethan and Jacobean Medicine was extremely basic in an era when terrible illnesses such as the **Bubonic Plague (Black Death)** were killing nearly one third of the population.

Just the sight of an Elizabethan/Jacobean Physician in his strange clothing, especially the weird mask, was enough to frighten anyone to death. The Physicians clothes probably saved his life and prevented him contracting the illnesses and diseases of his patients such as the plague and typhoid.

The underlying cause of many of the Elizabethan/Jacobean illnesses was the ***lack of sanitation***, especially in large towns or cities such as London.

There were open sewers in the streets which were also filled with garbage. This was occasionally removed and waste was dumped into the nearest river such as the Thames.

Diseases were easily spread in this unsanitary environment where fleas, lice and rats all flourished. There was no running water, this was obtained from water pumps (a main cause of the spread of typhoid).

Medicine was basic, Physicians had no idea what caused the terrible illnesses and diseases.

The beliefs about the causes of illnesses were based on the ancient teachings of *Aristotle* and *Hippocrates*. The Physicians paid attention to a patients bodily fluids, called Humours, which explains the reason why patients where subjected to 'bleeding'.

Other beliefs of the Elizabethan Physicians centred around Astrology.

The Elizabethan/Jacobean medical profession had no idea what caused the plague - the best they could offer was to bleed the patient or administer a concoction of herbs.

The **Bubonic Plague** was spread by the bacillus *Yersinia pestis*

Elizabethan/Jacobean Physicians wore long dark robes with pointed hoods, leather gloves, boots, and the most bizarre masks featuring long beaks which were filled with begamot oil. Amulets of dried blood and ground-up toads were worn at the waists of the Elizabethan/Jacobean Physicians.

It was their custom to douse themselves with vinegar and chew angelica before approaching a victim.

These precautions would have protected the Physician. The bizarre and gruesome physician masks would have acted as protection against contracting the disease through breathing the same air as the victim.

Neither rats nor fleas could easily penetrate these defences.

Die Doktor Schne-
bel von Stein



Wohl du bist ein fischer
und fischest nach dem morgen
in hohem Wasser.
Du wirst jenen Fisch davon
Gefangen haben in der Stille
gleich wie der Herr von Bergheim
die Stadt - aber nicht sind die
Länder so groß wie du.

Was kann ich dir schenken
für jenen Vogel aus Judentum
was kostet es mir zu thun
und kann jene vogel
wieder nach Cöthen kommen
als du wieder nach Hause kommst
aus jenen Länden und
und zurück zu jenem fisch.



© Science Picture Co./Corbis

Medicines were administered by different people, depending on class and the ability to pay the fee. Only the very wealthy would receive the ministrations of a **Physician** who would have received an education at one of the Universities and the College of Physicians. The usual fee would be a gold coin (well beyond the means of most people)

Surgeons were Inferior to Physicians these had a similar reputation to the barbers with whom they associated and belonged to the **Company of Barber Surgeons**

The **Barbers** were inferior to the Surgeons, although they also belonged to the **Company of Barber Surgeons**. They were only allowed to pull teeth or let blood

The Apothocary:

The usual route that most people took was to visit the apothecary, or dispenser of drugs.

The Apothocaries belonged to the ***Grocer's Guild*** and sold sweets, cosmetics and perfumes as well as drugs

The ***Church*** provided some comfort for the poor

The ***Local 'wise woman'*** was often the first person contacted by poor people

Elizabethan/Jacobean illnesses were similar to the illnesses of the Modern age - but before causes had been identified and cures identified.

In addition to this there were outbreaks of terrible diseases such as the **bubonic plague** and **typhoid**. **Broken bones, wounds, abscesses** and **fractures** were treated in unsanitary environments making the condition even worse.

The only cure for **toothache** was having the tooth pulled - without anaesthetics.

Amputations were performed by surgeons - the stump was cauterised with pitch.

Poor living conditions and poor diet led to many illnesses suffered by both the wealthy and the poor.

Anaemia was common as was **rheumatism, arthritis, tuberculosis** and **dysentery** (known as **the flux**).

Child bearing and possible childbed fever was dangerous - many Elizabethan woman made arrangement for the care of their children in case they themselves died during childbirth.

The white make-up applied by the Upper Class women was **lead-based** and therefore poisonous - Elizabethan women who applied this make-up were often ill and if it was used in sufficient quantities it would result in death.

The Upper classes also suffered from **gout**.

Influenza was common, referred to as the 'sweating sickness'.

Sexually Transmitted diseases, such as **syphilis**, were also prevalent.

Elizabethan medicines were **basic**, to say the least. Letting blood was conducted by cupping or leeches.



Medicines used to treat various illnesses

Bubonic plague (the black death) was treated by lancing the buboes and applying a warm poultice of butter, onion and garlic. Various other remedies were tried including **tobacco, arsenic, lily root** and **dried toad**.

Head Pains were treated with sweet-smelling herbs such as rose, lavender, sage, and bay.

Stomach pains and **sickness** were treated with wormwood, mint, and balm.

Lung problems given the medical treatment of liquorice and comfrey.

Wounds: Vinegar was widely used as a cleansing agent as it was believed that it would kill disease.

From Romeo and Juliet

I do remember an apothecary-
And hereabouts he dwells —whom late I noted-
In tattered weeds and overwhelming brows,
Culling of simples, Meagre were his looks;
Sharp misery had warn him to the bone;
And in his needy shop a tortoise hung,
An alligator stuff'd and other skins
Of ill-shaped fishes; and about his shelves
A beggarly account of empty boxes,
Green earther pots, bladders, and musty seed,
Remnants of packthread, and old cakes of roses,
Were thinly scatter'd to make up a show.
Noting this penuary. To myself I said,
And id a man did need a poison now-
Whose sale is present death in Mantua-
Here live a caitiff wretch would sell it to him.
O. This same thought did but forerun my need;
And this same needy man must sell it me.
As I remember, this dshould be the hous;
Being holiday, the begger's shop is shut-
What, ho! Apothecary!



Apothecary



NOW IN
CAPULETS!



A photograph of a yellow brick building facade. A large, red horizontal sign with white lettering reads "DISCOUNT CHEMIST". To the left, a smaller black sign on a pole displays "Sydney Road Brunswick" and "in Moreland City". To the right, a red triangular sign for "CHEMIST WAREHOUSE DISCOUNT" is partially visible.

A large, brightly colored sign for Chemist Warehouse. The word "CHEMIST" is written in large, bold, white letters inside a red house-shaped outline. Below it, the words "WAREHOUSE" are written in a smaller, white, sans-serif font. To the left, a blue section of the building has the letters "CO" and "NT" visible, likely part of "ACCOUNTANT". The building is set against a yellow brick wall.

IS THIS? AUSTRALIA'S CHEAPEST C

The logo for Chemist Warehouse, featuring the brand name in white, bold, sans-serif letters inside a stylized red house outline.

UP TO 50% OFF PRESCRIPTIONS

4 PM - 6 PM
MON - FRI

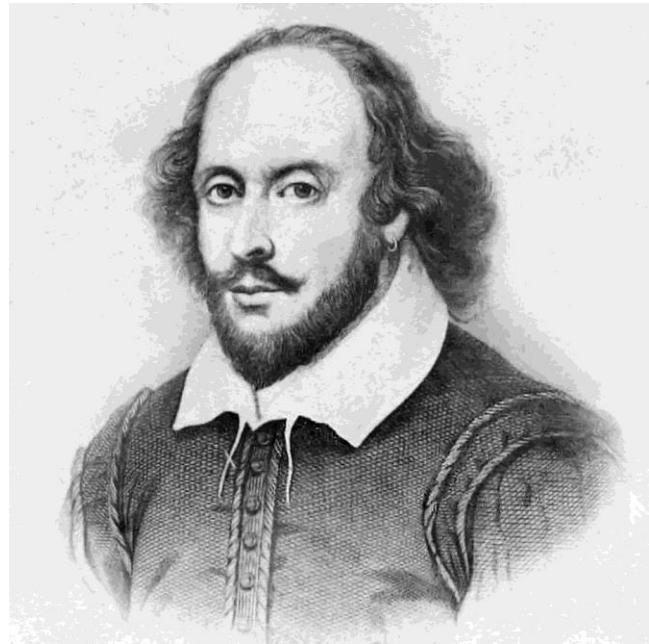
A collage of numerous book covers from the 'WE BEAT' series. The books are arranged in a grid-like pattern, with some titles and authors visible on the spines. Overlaid on the top left of the collage are large, bold letters spelling out 'CRAZY' and 'BONUS' in yellow, and a pink sign that says '1¢'. The overall theme is a playful, retro-style advertisement for the book series.

A photograph of a shop window display. The main sign reads "JUMBO JULY CATALOGUE NOW ON!" in large yellow letters. Below the sign, there are several blue boxes labeled "CHEMIST WAREHOUSE". Various items are displayed on shelves, including a pink bottle of "Stop Paying Too Much" and a white bottle of "Stop Paying Too Much". Price tags are visible throughout the display, such as "29¢", "59¢", "79¢", and "99¢". The background shows a person standing behind the counter.

**OPEN
7 DAYS**



Thank you!



It were a grief so brief
to part with thee.
Farewell.”

Romeo to Friar Lawrence,
Act 3, Scene 2, p8
and from
Louis to you

