

Infection: A Tibb perspective

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Overview

Until quite recently in our history, the prospect of a serious infection filled people with dread and foreboding. This attitude changed rapidly and for the better with the arrival of the antibiotics 60 or 70 years ago. Life threatening diseases were now amenable to effective treatment with simple substances derived from micro-organisms. However, the efficacy of many antibiotics is under serious threat, especially from the global build-up of resistance in bacteria to these agents. The reasons are several – general overuse, inappropriate treatment, especially for non-bacterial infections and general dissemination in many staple foodstuffs. On top of this is increasing evidence that antibiotics can seriously diminish the patient's immune system, which is a powerful component of Physis. Unfortunately, the chance of newer, more effective antibiotics is remote, for financial and other reasons. Antibiotics, in a nutshell have probably had their day. But what alternatives are there to the treatment of infection? Tibb is well placed to deal with three strategies: as part of an integrative medical approach; as a provider of herbal remedies and lifestyle improvement to deal with chronic infections; and as a pioneer in the use of hygienic control, based on its empirical and historical experience

A brief history of infection

Since the beginning of time, infection has been one of the major scourges of humankind. Acquiring a major infection, through injury, warfare or pestilence, was the kiss of death for many, many people. Children were particularly vulnerable, as their basic body defense mechanisms were not fully effective and easily overcome by constant exposure to many pathogenic microbes present around them. The situation was not helped by poor water quality, crowded living conditions and poor quality food, the lot of most people. Treatment of infection was largely ineffective, and unreliable. The practice of basic hygiene, purification of water and other measures to improve the quality of daily life were not widely and consistently practiced, and some actions were of very dubious value. Herbal therapy was one way of both preventing and treating infection, by helping support the person's Physis, or innate ability to self-heal. However, this was not readily available for much of the population.

There was a wide range of options which were used to treat people with infections.

Herbal remedies containing garlic, onions and radishes were used, plus frankincense and myrrh if available. Interestingly, bread mould was also applied to skin infections, as the presence of the *Penicillium* fungal growth was known to be effective. Copper was also applied topically, as the healthcare provider was no doubt aware of its therapeutic properties. Live yoghurt and wine vinegar also had their adherents as topical anti-bacterial agents.

Honey. This was commonly used as conventional therapy in fighting infection well into the 20th century, when it was discarded from mainstream therapy by the arrival of the antibiotics. In some countries raw honey is now back on the approval list for infections, as it convincingly demonstrates ant-infective properties. It possesses a number of useful properties, such as suppressing microbe growth on the skin due to its high sugar content. Also it contains an enzyme (*glucose oxidase*) which releases low levels of hydrogen peroxide into the wound, so helping cleansing and recovery. Honey applied to an open wound helps Physis, by drawing excess fluid away from the wound, so inhibiting further infection. Finally, it reacts with the exposed tissue to remove an offensive smell.

A traditional method of infection control was strict adherence to hygiene. This is now undergoing a renaissance, especially in the hospital environment, as we now understand its importance. On the personal level, one specific activity is hand washing.

Hand washing. Hand to eyes, noses or mouth is the most common way of transmitting microbes from person to person. Washing the hands at reasonable intervals is the number one protection against infectious disease, both acquiring the disease, and passing it on by contagion. Although now generally available, the anti-microbial soaps and gels do not seem to confer additional protection; certainly against viruses, and probably against pathogenic bacteria. Washing hands thoroughly with plain soap and water seem enough. They protect against bacterial infections linked to pneumonia, gastroenteritis, stomach infections like salmonella, superbugs like MRSA, and surgical wound complications. Virus linked diseases like the common cold and influenza and hepatitis are also inhibited by hand washing.

Dawn of the antibiotic era. This was the situation until about 60 to 70 years ago. The year 1940 is reckoned to be the dividing line between the pre-antibiotic and the post-antibiotic eras. The discovery of anti-bacterials, specifically antibiotics, coinciding with major improvement in living conditions, food and water quality, and better hygiene revolutionised the infection scenario, almost overnight. Bacterial diseases in particular, like pneumonia, tuberculosis, infected wounds and injuries responded so well that many became rarities in a few decades. *The age of antibiotics had arrived.*

The use of antibiotics to treat serious infections in wounds and rampant diseases became widespread. The response to antibiotic therapy was nothing short of miraculous. Bacterial infections which once spelt the death knell for most people responded very positively to treatment, and many pervasive diseases like scarlet fever, diphtheria pneumonia and tuberculosis, almost disappeared overnight in the communities which could access and afford them. Society as a whole benefited hugely by the ability to bring several previously rampant sexually transmitted diseases under control.

For several decades, the improvement in infection management generated such a groundswell of positive attitudes and enthusiasm that certain medical authorities pronounced “mission accomplished” – the eradication of bacterial infection.

The conventional medical approach to infection

Pasteur considered that infectious diseases arose from the action of pathogenic microbes. Incidentally, before his death Pasteur had switched the focus of infection from the invading pathogenic microbe to the person’s susceptibility.

In the conventional medical treatment of infection, great store is set on eliminating the offending microbe by the use of drugs (“drug for the bug”) – which are often synthetic, or chemically processed versions of natural substances. The antibiotics effectively buy time for the body. They either kill a high proportion of the microbes (*bactericidal*), or markedly slow or arrest their growth (*bacteriostatic*). This allows the body’s own defence mechanisms to recover and come back into play, then eliminating the surviving microbes and so alleviate the disease.

“All the great medical breakthroughs in infectious diseases, all the drugs and technical achievements have done nothing more than assist the body’s own immune system. They give us an edge, the time to mount a defense; in reality they do nothing more.” [Glasser]

Also, conventional medicine dictates that the drugs are given as soon as possible in the progress of the infection, to restrict rampant growth of the microbe. This, unfortunately, interferes with Physis’ action, so inhibiting the body’s natural defences.

The problems with antibiotics

Alas, this incredible and amazing medical practice success story was about to come to an end. “Mission accomplished” was, to say the least, hugely premature. For various reasons the antibiotics became less and less effective, and caused medical problems which were often more troublesome than the infections they were targeting. With hindsight, the benefits that antibiotics brought were dissipated by misuse, overuse and abuse. They were used inappropriately for relatively trivial ailments, for viral infections, for too long, or too short, periods. For example, a child could receive as many as 30 courses of antibiotics by the age of seven in many developed countries.

The excessive use of antibacterial soaps, gels and other antimicrobial products can contribute significantly to the growing scourge of antibiotic-resistant bacteria.

They were added to feedstock of farm animals, so exposing many people, especially in the developed countries, to low levels in their food.

Antibiotics filter down through the food chain in unsuspected ways. Not only for farm derived meat; fruit and vegetables too. Food crops like lettuce and potatoes will accumulate antibiotics from soil covered with antibiotic-containing manure.

In greater detail, the main problems of antibiotic use today are:

Side effects: This is not surprising, considering that most antibiotics are synthetic or semi-synthetic chemicals, alien to the body. Physis is often unable to handle and eliminate them in early exposures, so the normal workings of the body’s different tissues and organs are disturbed.

Depressed immune system: This essential part of Physis becomes compromised, leading to greater risk of repeated infections. The formation of antibodies and the activity of white blood cells, two major agents of the immune response, are reduced by long-term or repeated antibiotic use. This can cause immense problems, such as greater risk of cancer of parts of the gut developing. Not only that, but by taking over the role of eliminating pathogenic microbes, antibiotics make Physis redundant in this area. Its memory of specific antibody formation necessary to deal with the current or similar infection is erased, so its ability to fight the next wave of bacterial infection is blunted.

Intestinal problems: The delicate ecological harmony in the intestines' bacterial population is disturbed by powerful antibiotics. Beneficial bacteria are destroyed, along with the pathogenic microbes. This leads upset fluid and electrolyte balance, resulting in unpleasant side effects like diarrhoea, bloating and flatulence, and – more seriously – malabsorption syndrome. It also paves the way for vitamin deficiencies and yeast overgrowth, which is very fatiguing and potentially fatal. It invariably requires treatment with expensive antifungal drugs, with the problems these themselves may bring, such as

Allergies: These are becoming increasingly common, for reasons not yet clear. The allergy may be mild, or more serious. On rare occasions these can be life-threatening, especially if they progress to anaphylaxis.

Cancer: There is considerable evidence that extensive use of antibiotics contributes to the onset of cancer. The inhibiting effect on the immune system is probably a factor.

But probably the major problem facing the use of antibiotics is:

Bacterial drug resistance: This is largely tied into the misuse and abuse of antibiotics over the years, for one reason or another. The consequence of this is that we now have a major public health problem. At least 15 serious diseases brought on by bacteria are now resistant to antibiotics, even the most potent ones like vancomycin and the carbepems.

Problems with the use of antibiotics

- ◆ *Weakens and opposes Physis*
- ◆ *Side effects due to chemical synthetic nature*
- ◆ *Development of resistance leads to lack of effect*
- ◆ *Link between frequent antibiotic use and cancer*
- ◆ *Misused for disorders which cannot respond*
- ◆ *Frequent recurrence of infection*
- ◆ *Occurrence of different infection*

There are also risks when giving antibiotics to *mothers-to-be*. If used extensively in late-stage pregnancy, the normal balance of good and bad bacteria may be seriously disturbed, so when the mother gives birth, this distorted balance is passed over to the new-borne child. This eventually has an impact on the child's gut population, and can lead to problems later in life.

Acute and chronic infections

Acute infections are characterized by the active involvement of the entire immune response to invading micro-organisms. The body is affected with symptoms such as heat or fever, in itself a most powerful infection-fighting Physis response. Other acute infection symptoms relate to inflammation: pain, swelling and redness, as well as pus formation, which is made up of dead bacteria and white blood cells. The patient may also have other symptoms, such as headache, an upset stomach, or a rash.

Chronic infections are those that the body is unable to fight directly. The infection rarely kills, but the body is also unable to remove the bacteria responsible completely. Almost everyone has this in one

form or another. Symptoms are often negligible, if any at all. Typical ones are post-nasal drip related to a chronic sinus infection, dizziness, or slight hearing impairment related to a chronic ear infection. Others are hoarseness from a chronic bronchial or respiratory infection, itchy areas of the body, or a sensitive tooth. Another common one is stomach discomfort. This may be all that one is aware of when the intestinal tract is infected with improper bacteria or a parasite infestation such as *E.coli*, *Entamoeba histolytica* or *Candida albicans*.

However, in many cases, one is unaware of the presence of a chronic infection. Blood and other types of tests also often show no evidence of it. The reason is that the body has often encapsulated or otherwise isolated the infecting bacteria, so that it does not cause direct symptoms.

Chronic infections often require a different approach than acute ones. However, for both types the person's Physis should be strengthened to prevent and successfully handle either form of infection.

The prospects for infection control

The situation prevailing until quite recently regarding the use of antibiotics cannot last. In this scenario, doctors prescribe them often for non-bacterial ailments, patients ask for them for virtually every illness, antiseptic wipes are available almost everywhere, livestock farmers dose their animals for economic, not health reasons, and companies push their usage aggressively.

Part of the problem is that doctor training rarely if ever considers alternatives to the use of antibiotics in the struggle against infection. They learn that what kills the offending microbes, kills the disease. The curative mentality, which is disease-orientated, prevails over the holistic approach, which is more patient-orientated. Little regard is paid to the possible value of other forms of medicine, and the systematic use of hygiene, although this situation is improving.

The future control of infection will revolve around four distinct approaches:

- (1) The responsible, judicious and limited use of specific antibiotics which effectively target the offending microbes, identified by laboratory techniques. *This helps reduce the bacterial density to levels manageable by Physis*
- (2) The improvement and general use of hygiene measures, both personal and public, which restrict the spread and inter-personal transmission of pathogenic organisms. *This reduces exposure time to the microbes, and restricts their migration.*
- (3) The strengthening and support of Physis, so encouraging a greater potential for inner healing. *This helps overcome the present infection, and builds up defences against future microbe invasions*
- (4) Protection of gut bacteria. Probiotics are enlisted to protect the harmony existing in the gut bacteria. *This supports Physis, and protects the digestive processes.*

The Tibb approach to infection

Fundamental to the issue of infection are the questions: What determines whether we succumb to an infectious disease or not? Why one person gets an infection, but someone else does not? There are several reasons, not just exposure to a particular pathogenic microbe.

Tibb recognises at least five factors:

First, the infectious microbe which we take into our body has to be able to evade the actions of our Physis, which attempts to maintain inner harmony by eliminating it. The most common way this is achieved is by sheer numbers; a sneeze or cough, or prolonged physical or intimate contact brings a large number of the offending microbes into our body. If we have not already been in contact with this particular microbe, then Physis has no memory of it, or how to deal with it, and is therefore slow to respond decisively to it. This is why a person with strong natural defenses often goes down quickly to a common pathogen he or she has not been previously exposed to.

Second, the extent to which an infection takes hold depends on the “responsiveness” of the person’s Physis to the microbe. Over time, our body has devised an ingenious, intricate but powerful number of mechanisms to protect us against invasion by hostile microbes. The potential of these varies from person to person, and is in fact an aspect of the person’s temperament. Some people are more inclined to going down with an infection – others less so. This factor also explains why people vary in the intensity and duration of their symptoms. Some people of a certain temperament are very badly affected by certain infections, whereas others, even close family members, only develop a mild form of the disease. The body’s innate defenses, an important part of Physis, include the immune system and the integrity of the tissues or organs attacked by the pathogenic microbe.

Third, there is the infective climate. This describes the length of time the hostile microbe is in contact with the person. The longer the time, the higher is the risk of infection occurring, and the subsequent severity of the infection. The body’s defense systems are ‘worn down’ by unremitting exposure to the potentially infectious microbe. The body’s natural resistance is overcome in a process of attrition. However, most infections eventually heal naturally, as Physis rapidly builds up opposition to the microbe invasion, and sooner or later overcomes it.

Finally, there are the lifestyle factors. These describe in detail the quality of the way we live. They include the quality of the air we breathe our food consumption and sleep status, the physical and mental exercise we undertake, the season of the year at the time, the emotional issues which affect us, and the efficiency of elimination of natural waste and toxin from our body. These can have a major say in whether we surrender to an infectious microbe.

The Tibb treatment of infection

The basic guideline from Tibb when treating infection is based on a saying attributed to Hippocrates: “Do not lose sight of a fundamental principle. Never work against Nature, but to direct all efforts towards supporting the body’s natural defense mechanisms”. This applies to all forms of medical treatment, but especially to diseases brought about by infections.

The initial treatment of infectious disease is to reduce troublesome symptoms. This can be achieved by the use of herbal therapy, opposing dehydration with water and soups, and encouraging rest, both as sleep and as relaxation. These measures support Physis. Also in support are emotionally stimulating measures such as contact with friends and family, and avoidance of excessively cold or hot environments.

All activities in treating infections are geared to restoring inner harmony. They act to bring back the person’s disturbed temperament back to normal, whilst at the same time supporting Physis. Herbal

therapy use of appropriate herbal medicine (“phytotherapy”) and changes to the person’s lifestyle factors. All carried out bearing in mind the unique temperament of the person affected.

Prevention of infection is also amenable to Tibb intervention. Tibb measures rely heavily on two main behaviours: maintaining good personal hygiene, and enhancing the power of the lifestyle factors, especially nutrition. These help strengthen the person’s Physis. Through personal hygiene measures brought about by health education we can consciously change our behaviour to minimise the risk of acquiring an infective disorder. We can choose to purify water before drinking it, to avoid a number of infections; we can sleep under mosquito nets, to avoid malaria; we can cook foods properly to kill any pathogens lurking in them.

The Tibb approach to infection reflects a general changing in attitude to synthetic, non-natural drug use. Many people are becoming increasingly aware of our place in Nature, and being more responsible about it. People are becoming increasingly aware of the generally harmful effects of many, if not most, drugs. The search is on for better, more ‘Nature-friendly’ alternatives to prevention and treatment of infections, which fit into a more ecological lifestyle: ‘co-operation and harmony, rather than control and confrontation’.

<p><u>The Tibb way of helping a person with infection</u></p> <ul style="list-style-type: none">◆ <i>Supporting Physis</i>◆ <i>Dietary therapy</i>◆ <i>Personal hygiene</i>◆ <i>Herbal therapy</i>◆ <i>Lifestyle factor management</i><ul style="list-style-type: none">☉ <i>Air & breathing</i>☉ <i>Exercise & rest</i>☉ <i>Sleep hygiene</i>

Combining Tibb and antibiotic therapy

Tibb is not opposed to the use of antibiotics. It acknowledges that they have been invaluable when dealing with serious bacterial infections. However, they only deal with the symptom of infection, which is a weakened or incapable Physis due to bacterial invasion, not its causes. Tibb feels any use of antibiotics must be done with discretion and responsibility, and as part of an holistic approach, involving measures to strengthen Physis, improve hygiene and modify the lifestyle factors such a diet.

This gives the person’s Physis the ability to work properly in dealing with the pathogenic microbes, and helped out by antibiotics when the situation demands it.

In fact, the combined use of Tibb measures and conventional medicine’s use of antibiotics is a very good example of Integrative Medicine in action. The antibiotics reduce the number of pathogenic microbes, which have previously overwhelmed Physis. This allows Physis to overcome and eliminate the remaining pathogens, and so lead to recovery of the patient.

<i>Diseases which respond to antibiotics</i>	<i>Diseases which do not respond to antibiotics</i>
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Pneumonia	Most childhood disorders (usually viral in origin)
Certain kidney diseases	Upper respiratory infection (nasal, sinus, throat and ear infections)
Urinary system (kidney and bladder infections)	Lower respiratory infections (croup, wheezy bronchitis, asthma, recurrent infections)
Sore throat with exudates	Gastroenteritis
Middle ear infections	

Summary

The era in which antibiotics were used widely and indiscriminately is drawing to a close, as their effectiveness is seriously compromised by the development of resistance and other negative features. There will still be a place for their use in cases of severe infection, emergencies and wounds. But most infections do not need an antibiotic, and will resolve naturally given time. There is also the potential for natural healing systems, such as Tibb, combined with traditional hygiene techniques, to deal successfully with the majority of day-to-day infection; this integrated and holistic approach combines the individual impacts into one practice. The body's inner healing systems – represented by Physis – are enhanced by the supportive measures embedded in the lifestyle factors (especially diet, rest and sleep), herbal therapy, and the antibiotic reduces the pathogenic microbe load to levels manageable by the immune system. Any adverse effects brought by the antibiotics can be minimised by the use of probiotics and other support factors. This holistic approach also takes advantage of treatment according to the patient's temperament. Once this has been normalised, then the patient is well on the way to recovery. Overall, a safer form of treatment and a gentler approach to infection is needed – and is available.

Further reading

The nature of infection: <http://en.wikipedia.org/wiki/Germ-theory-of-disease>
Natural healing: <http://www.prevention.com/health/natural-remedies>
Traditional healing: en.wikipedia.org/wiki/Traditional_medicine
Problems with antibiotics: <http://mayoclinic.com/antibiotics/FL00075>
Tibb theory and practice: <http://www.tibb.co.za>
Integrative medicine: www.drweil.com/drw/u/.../Andrew-Weil-Integrative-Medicine.html
Herbal therapy of infection: <http://www.skrewtips.com/2009/08/06/natural-antibiotics>
Hygiene practice: <http://www.selfgrowth.com/articles/infection-control-and-complementary-therapies>
Probiotics: www.naturalnews.com/037005_antibiotics_probiotics_gut_flora.html
Specific infections: <http://www.tibb.co.za/ailments.html>