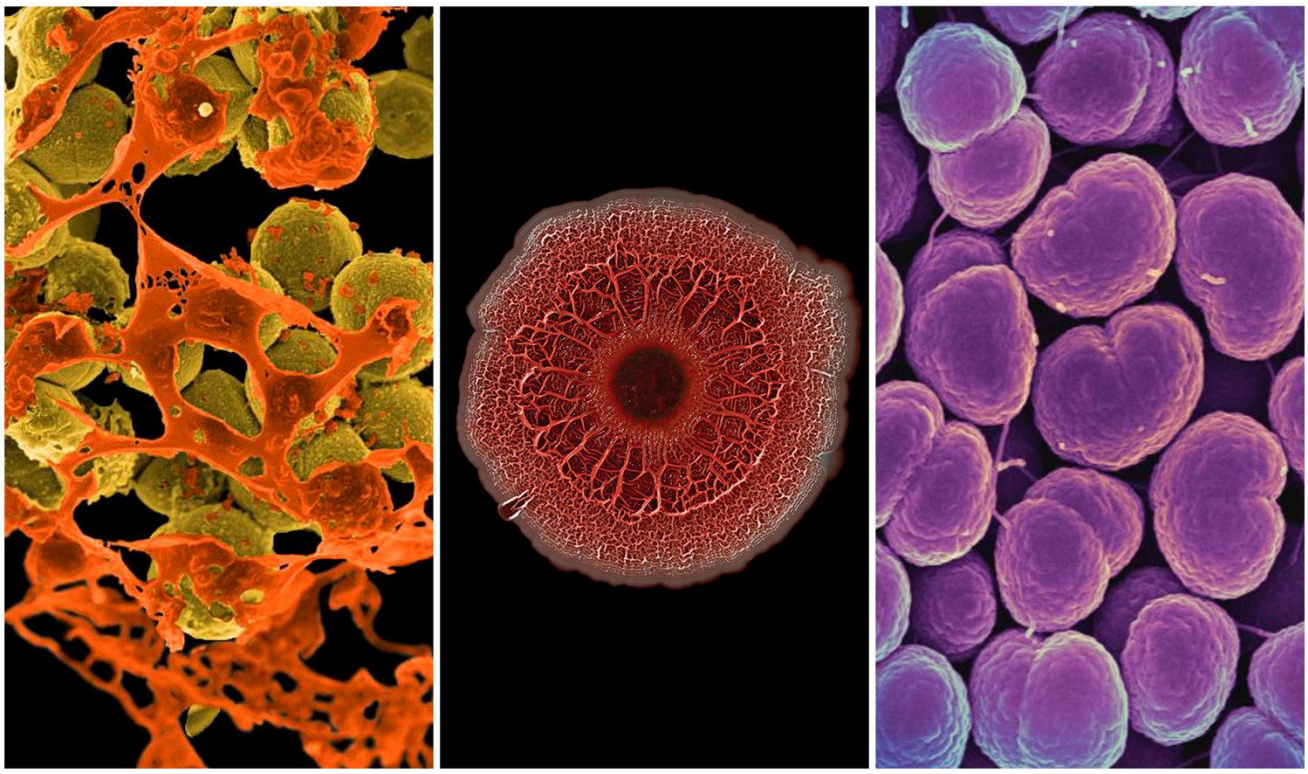
Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

List Of The Dirty Dozen

Superbugs



WHO's list of the 12 most threatening pathogens includes (from left) *Staphylococcus aureus* (causing skin infections, pneumonia and bloodstream infections), *Pseudomonas aeruginosa* (causing blood infections, pneumonia, infections after surgery) and *Neisseria gonorrhoeae* (causing the sexually transmitted disease gonorrhea).

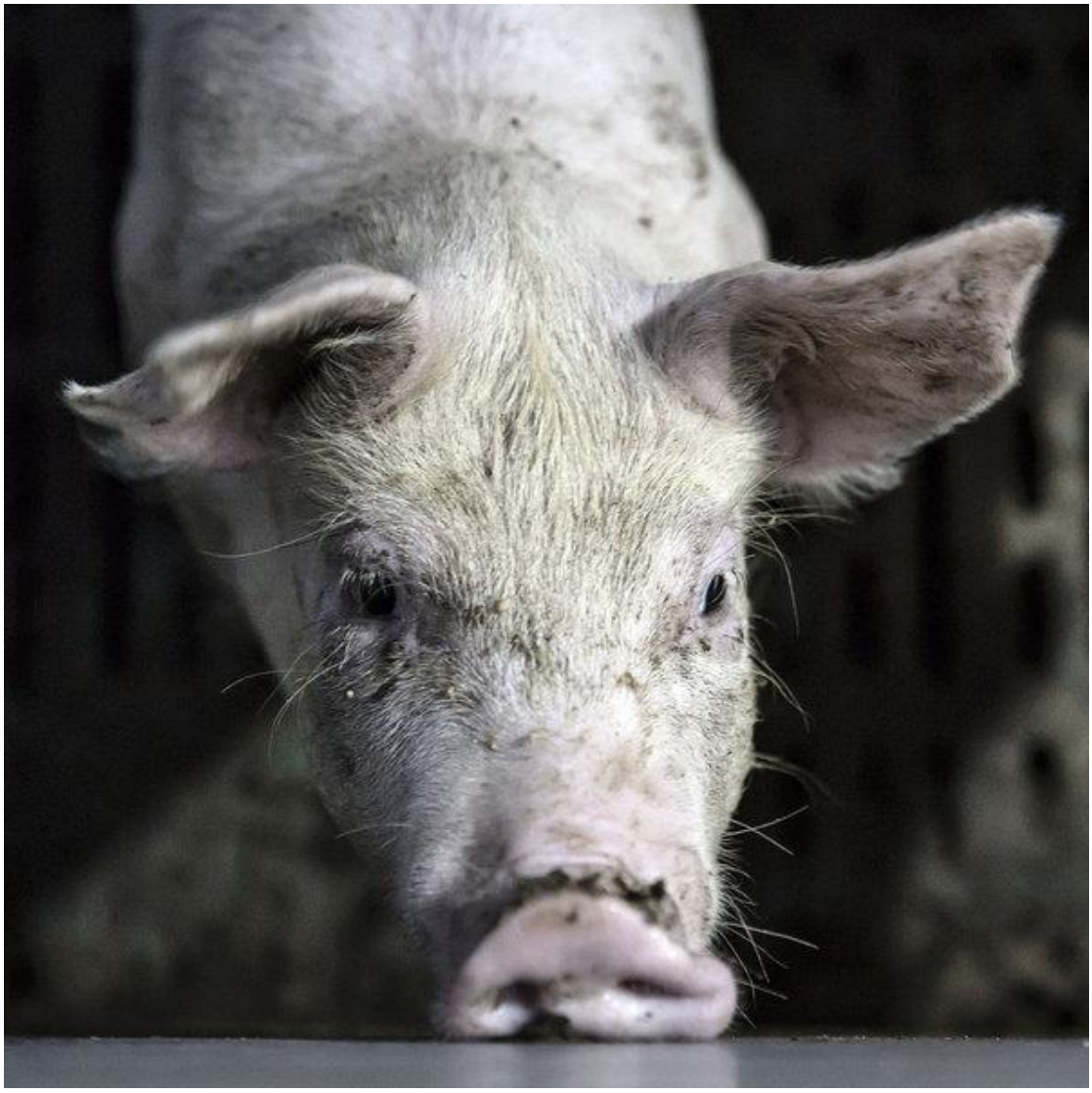
The World Health Organization for the first time has issued a list of the top 12 "priority pathogens." They're disease-causing bacteria that are increasingly resistant to antibiotics, says WHO. Yet the development of new antibiotics to treat them has slowed to a crawl.

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

Contents

"We are fast running out of treatment options," says Dr. Marie-Paule Kieny, WHO's assistant director-general for Health Systems, in a statement.
WHO says its new list is an attempt to get drug company and public research labs to make it a priority to collaborate on new treatments for the bacteria that pose the greatest threat to human health. "If we leave it to market forces alone, the new antibiotics we need are not going to be developed in time," says Kieny. “We don’t we forget the SINthetic patents and use safer natural medicines and stop experimenting on humans” says Desire’ Dubounet.

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with



GOATS AND SODA

How You Can Stop Antibiotic Resistance (Stop eating Bacon)

Dr. Elizabeth Tayler, a senior technical officer for Antimicrobial Resistance with WHO in Geneva, tells Goats and Soda that typically getting a new antibiotic can take a decade or more. "And we are already seeing bugs that are resistant to all the drugs we have available," she adds.

The list has three sections:

Critical

The highest priority is research and development for three families of multidrug resistant bacteria, including E. coli, that often prove fatal in hospitals and nursing homes. These often are "gut" bacteria, according to Tayler, found in the intestinal tract and spread by the fecal contamination of food, water or operating room equipment.

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

"These bugs ... usually affect people in intensive care units," says Tayler. "They get into your bloodstream, causing very severe life-threatening infections, life-threatening pneumonia and very, very nasty wound infections that are very hard to treat."

High priority
These are a grab bag of multidrug-resistant microbes including gonorrhea, staph infections and salmonella. "These are perhaps the bugs most likely to give you severe disease," says Tayler. "They spread very easily and we don't have any other way of preventing them."

Medium
This category includes a flu bug and penicillin-resistant streptococcus bacteria. Tayler says these microbes show significant resistance to antibiotics but are listed as "medium" priority because there are other options to deterring them, including immunization.

But don't let the category title lull you, she says: "The 'medium' are still very nasty bugs that can make you very sick and kill you."

12 bacteria pose greatest risk to human health

High: Campylobacter – Campylobacter are among the most common cause of food poisoning and diarrhea. They are now showing resistance against the drug fluoroquinolone.

High: Salmonellae – Some drugs still work against salmonella, though the bacteria are showing increasing resistance. They are a common cause of food poisoning.

High: Neisseria gonorrhoeae – Neisseria gonorrhoeae, the bacteria that cause gonorrhea, are developing resistance to the main drugs used against them. Left untreated, gonorrhea can cause serious health problems, including pelvic inflammatory disease in women and a painful condition in the tubes attached to the testicles in men.

Medium: Streptococcus pneumoniae – Streptococcus pneumoniae bacteria are showing resistance to penicillin. Other options remain possible to treat the infection for now, but resistance is emerging. Infection can cause a range of symptoms, including pneumonia and meningitis.

Medium: Shigella – Shigella bacteria are showing resistance to fluoroquinolone and increasingly to second-line drugs used against them. They infect the intestine and cause diarrhea.

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

High: Enterococcus faecium – Enterococcus faecium is a member of a group of bugs known as the ESKAPE pathogens. These bacteria are commonly picked up in the hospital, potentially infecting the urinary tract, the bloodstream, or wounds from surgical procedures.

High: MRSA – In the "high" category, MRSA are typically acquired in hospitals and are showing resistance to the main drugs used against them, but have a few options remaining.

High: Campylobacter – Campylobacter are among the most common cause of food poisoning and diarrhea. They are now showing resistance against the drug fluoroquinolone.

High: Salmonellae – Some drugs still work against salmonella, though the bacteria are showing increasing resistance. They are a common cause of food poisoning.

High: Neisseria gonorrhoeae – Neisseria gonorrhoeae, the bacteria that cause gonorrhea, are developing resistance to the main drugs used against them. Left untreated, gonorrhea can cause serious health problems, including pelvic inflammatory disease in women and a painful condition in the tubes attached to the testicles in men.

Medium: Streptococcus pneumoniae – Streptococcus pneumoniae bacteria are showing resistance to penicillin. Other options remain possible to treat the infection for now, but resistance is emerging. Infection can cause a range of symptoms, including pneumonia and meningitis.

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

Medium: Shigella – Shigella bacteria are showing resistance to fluoroquinolone and increasingly to second-line drugs used against them. They infect the intestine and cause diarrhea.

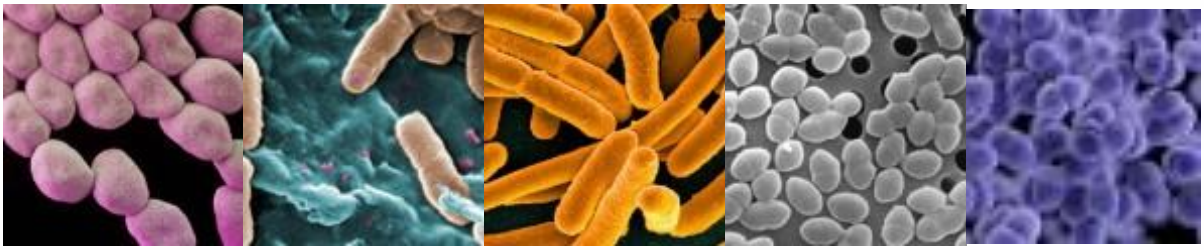
Critical: Acinetobacter baumannii – Topping the list as a "critical priority," Acinetobacter baumannii is a common cause of hospital-acquired infections, picked up both in hospital and in healthcare settings, such as nursing homes.

Critical: Pseudomonas aeruginosa – Pseudomonas aeruginosa is another common hospital-acquired infection with resistance to the main drug used against it, carbapenem.

Critical: Enterobacteriaceae – Enterobacteriaceae are a group of bacteria that include E.Coli (pictured). They are also showing significant resistance to the antibiotic carbapenem and are commonly picked up in hospitals. One in 25 hospital patients in the US are estimated to acquire at least one bacterial infection in hospital, according to the US Centers for Disease Control and Prevention.

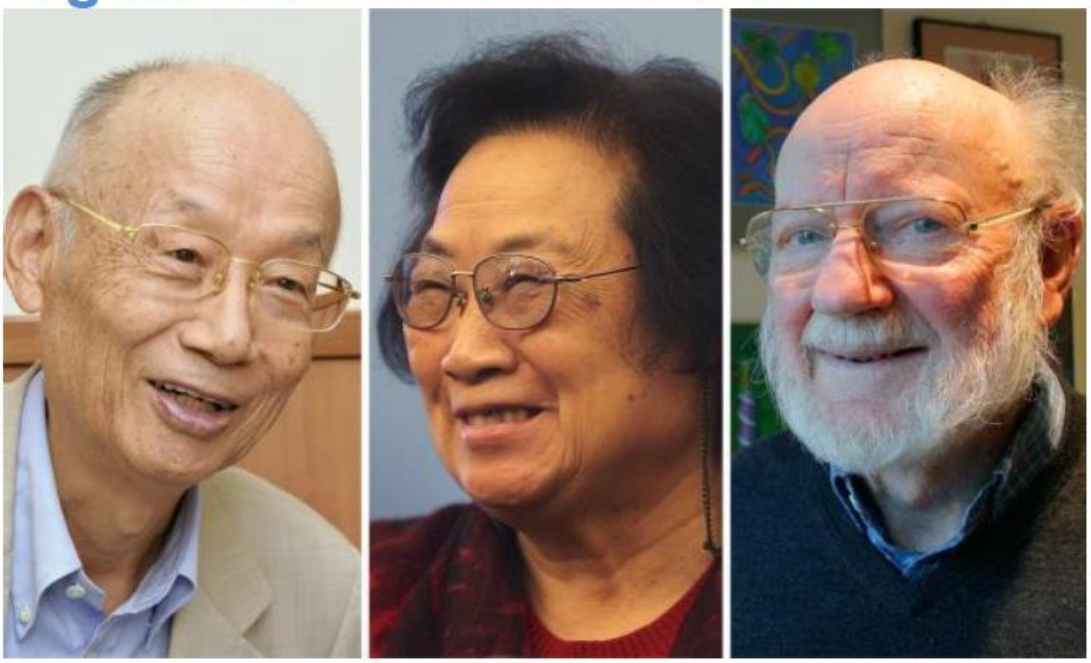
High: Enterococcus faecium – Enterococcus faecium is a member of a group of bugs known as the ESKAPE pathogens. These bacteria are commonly picked up in the hospital, potentially infecting the urinary tract, the bloodstream, or wounds from surgical procedures.

High: MRSA – In the "high" category, MRSA are typically acquired in hospitals and are showing resistance to the main drugs used against them, but have a few options remaining.



Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

The Nobel Prize in medicine has been awarded for Natural Cures against Malaria and Roundworms



They have saved of millions of lives. (Reuters/Brian Snyder/Kyodo)

WRITTEN BY **Akshat Rathi** October 05, 2015

The 2015 Nobel Prize in medicine has been awarded to three scientists from China, Ireland, and Japan. One half of the prize is shared by William Campbell of Drew University and Satoshi Ōmura of Kitasato University for their work on “a novel therapy against infections caused by roundworm parasites.” The other half goes to Youyou Tu of the China Academy of Traditional Chinese Medicine for her discovery of “a novel therapy against malaria.”

Natural Medicine is The Way

(CNN) Twelve types of bacteria were deemed "priorities" in urgent need of new antibiotics, according to a list released by the World Health Organization on Monday.

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

The first list of its kind, it highlights bacteria that global health experts believe pose the greatest threats to human health. The WHO is calling on governments and pharmaceutical companies to prioritize the development of new drugs against them.

Factors used to determine the bacteria posing the most risk included the levels of resistance seen already, the mortality rates of these bacteria today, their prevalence out in communities and the burden they place on health systems.

Hospital acquired infections

Topping the list were bacteria classed as "gram negative" bacteria, which have already shown resistance to multiple drugs.

These include Acinetobacter baumannii and pseudomonas aeruginosa, which are predominantly linked to hospital-acquired infections or infections in healthcare settings, such as nursing homes, and in patients who require equipment such as ventilators or blood catheters, which can become contaminated.

Enterobacteriaceae, which include bacteria such as E.coli and klebsiella, were listed third and also pose a greater threat in healthcare settings.

"These bacteria are responsible for high mortality rates," said Dr. Marie-Paule Kieny, WHO's assistant director-general for health systems and innovation. "New, effective therapies are imperative."

In the United States, one in 25 hospital patients are estimated to have at least one hospital-acquired infection, according to the US Centers for Disease Control and Prevention.

Globally, antibiotic resistance has been seen in every country, according to WHO, and drug-resistant bacteria are estimated to cause 700,000 deaths each year. If no action is taken, they are expected to kill 10 million people annually by 2050.

The risk of death from a resistant pathogens is two to three times greater said Dr. Carmem Pessoa da Silva, coordinator of antimicrobial resistance at WHO.

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

Drug-resistant superbug may be craftier, more widespread

The top three bacteria listed have shown resistance against multiple antibiotics, including those known as carbapenems, which are considered to be the most effective against multi-drug resistance.

WHO has released its list in hope of guiding and promoting the research and development of new drugs -- which can take as long as 10 years to reach the market.

"The (drug) pipeline is practically dry," Kieny said during a press conference, adding that new antibiotics are difficult to develop. She also highlighted the fact that antibiotics are typically used as short-term treatment, not long-term, meaning they have less market incentives to pharmaceutical companies.

Critical, high and medium priorities
The bacteria listed are divided into three categories based on the urgency with which new antibiotics are needed against them. They're classified as critical, high and medium priority.

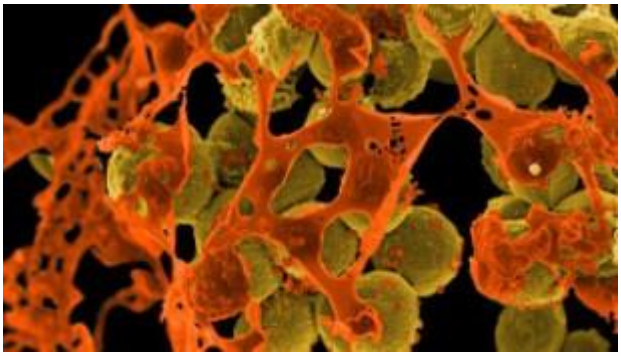
Superbugs: 5 things to know about antimicrobial resistance

"The top three (bacteria) have nothing to treat them," said Dr. Vicky Enne, a clinical microbiologist at UCL in the UK.

Though Enne did not help with the final list, she agrees that these 12 types of bacteria are the ones in need of most attention, adding that the top three types on the list currently require use of a less than ideal drug, known as Colistin, to treat them. "At the moment, (Colistin) is the antibiotic of last resort ... but resistance is also becoming more common," she said.

The second and third groups name bacteria that are increasingly showing resistance against the main drugs used against them, but which still have a few options remaining. "These still have some drugs to fight them ... but doctors are being forced to use last resort drugs because resistance levels are so high," Enne said.

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with



We can protect the world from antibiotic resistance if we act now, experts say

Salmonella and gonorrhoea are included among those considered a high priority, as well as campylobacter and helicobacter pylori, which cause food poisoning and gastritis, respectively.

Enne believes the drugs named in these lower groups also require the development of better rapid diagnostics so any resistance can be identified immediately, meaning drugs are not used unnecessarily.

"This fuels more resistance," she said.

Tuberculosis is a bacterial disease showing extreme resistance today, with some countries reporting cases with total resistance. WHO agreed with TB being a lead priority but left it off the list as it has its own arm of specific research and development to address the issue.

Tell us your story

Tell us your story
We love to hear from our audience. Follow @CNN Health on Twitter and Facebook for the latest health news and let us know what we're missing.

The issue of resistance has received attention in recent years. It was addressed during the United Nations General Assembly in 2016 and an independent review on antimicrobial resistance, commissioned by the UK government, concluded last year with a list of priorities to target the problem. But new drugs are still yet to be identified.

"This shows that WHO see antibiotic resistance as a major global challenge. Hopefully this will focus efforts on these areas of greatest need," said Dr. Andrew Edwards, a molecular microbiologist at Imperial College London, who believes governments must also set policies in place to support drug development. "There's no point having these drugs if there are no policies in place."

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

medicalexposedownloads.com/PDF/Common%20weed%20(Brazilian%20peppertree)%20fights%20superbug.pdf

Common weed

(Brazilian peppertree)

helps fight deadly superbug

By Lena H. Sun /Med Expo

Strong Chinese herbs for GONORRHEA

The following Chinese herbal formula(s) can treat or relief Gonorrhea:

Chinese Formula	Actions	Indications	Symptoms related to gonorrhea
Jia Wei Gui Pi Tang Augmented Restore the Spleen Decoction	Tonifies Qi and Blood; Clears lingering Heat.	Qi and Blood Deficiency with lingering Heat.	Anemia; Chronic gonorrhea; Gastrointestinal weakness; Memory loss; Poor appetite; Slight, chronic fever (individuals with constitutional weakness); Insomnia; Irregular menstruation; Irritability; Spermatorrhea.

Qing Xin Lian Zi Yin Lotus Seed Decoction to Clear the Heart	Tonifies Qi and Blood; Eliminates internal Heat.	Qi and Blood Deficiency with Heat lingering in the Heart, Lungs and Kidneys (usually from gross drinking).	Bloody leukorrhea; Chronic gonorrhea; Diabetes; Frequent urination; Profuse urine; Renal tuberculosis; Spermatorrhea; Turbid urine; Urinary calculus; Urinary incontinence; Anorexia; Cystitis; Generalized fatigue; Impotence; Stomatitis; Fine-Rapid-Empty pulse (Xi Shu Xu).
Xiang Chuan Jie Du Qi Unknown		This formula treats all types of syphilis.	Gonorrhea; Neuralgia (syphilis); Primary syphilitic sore; Skin rashes from syphilis.

6 more Chinese medicine(s) can treat or relief **Gonorrhea.**

Immunopharmacol Immunotoxicol. 1987;9(4):523-40.

Protective effect of a traditional Chinese medicine, xiao-chai-hu-tang (Japanese name: shosaiko-to), on Pseudomonas aeruginosa infection in mice.

Kawakita T[1], Yamada A, Mitsuyama M, Kumazawa Y, Nomoto K.

Author information

Abstract

Survival of mice after intraperitoneal (ip) or intravenous (iv) infection with Pseudomonas aeruginosa was augmented in the mice that had been pretreated ip with a Chinese traditional herbal medicine, xiao-chai-hu-tang (Japanese name: shosaiko-to) 6 hours or 4 days previously. 1) The pretreatment with shosaiko-to 6 hours previously induced an accumulation of polymorphonuclear leukocytes (PMN) in the peritoneal cavity, and its protective effect against ip infection was not impaired by treatment with carrageenan, a macrophage blocking agent. These results suggested that the protective effects of shosaiko-to against P. aeruginosa infection depended mainly on PMN in mice pretreated at this timing. 2) The pretreatment with shosaiko-to 4 days previously induced an accumulation of macrophages showing an augmented phagocytosis of P. aeruginosa in vitro in the

presence of immune serum, and its protective effect against P. aeruginosa was impaired by treatment with carrageenan. In addition, the pretreatment with shosaiko-to accelerated the bacterial clearance from the blood. The sera obtained from mice treated with shosaiko-to 4 days previously showed a high titer of antibody specific to P. aeruginosa. When this sera was transferred to naive mice, these recipients showed an accelerated bacterial clearance and an increased survival to challenge infection with P. aeruginosa. These results suggested that protective effects of shosaiko-to against P. aeruginosa infection at this timing depended on cooperation of macrophages and antibody which produced by stimulation of shosaiko-to, a polyclonal B cell activator. Such polyclonal antibodies were also effective on protection against encapsulated Klebsiella pneumoneae to which antibody was essential in the expression of resistance. These results suggested that shosaiko-to could augment nonspecific resistance to a variety of bacteria to which antibody plays an effective role.

PMID: 3437105 DOI: 10.3109/08923978709035230

Am J Chin Med. 2007;35(6):1047-60.

Antibacterial properties of Chinese herbal medicines against nosocomial antibiotic resistant strains of Pseudomonas aeruginosa in Taiwan.

Liu CS[1], Cham TM, Yang CH, Chang HW, Chen CH, Chuang LY.

Author information

Abstract

Pseudomonas aeruginosa is well-recognized as a nosocomial pathogen, which exhibits inherent drug resistance. In this study, the antibacterial activity of ethanol extracts of 58 Chinese herbal medicines used in Taiwan were tested against 89 nosocomial antibiotic resistant strains of Pseudomonas aeruginosa. The results gathered by the disc diffusion method showed that 26 out of the 58 herbal extracts exhibited antibacterial activity. Among the 26 herbal extracts, 10 extracts showed broad-spectrum antibacterial activities and were selected for further antibacterial property assay. The minimum inhibitory concentrations (MIC) of the active partition fractions ranged from 0.25 to 11.0 mg/L. The presence of flavonoid compounds in the active fractions of test herbal extracts was observed by the TLC-bioautography. The results from the time-kill assay revealed that most of the herbal extracts completely killed the test organisms within 4 hours. Exposure of the test strains to a sub-MIC level of the herbal extracts for 10 consecutive subcultures did not induce resistance to the active components. A combination of the active herbal fractions with antibiotics showed that one of

the herbal medicines, the hexane fraction of Ramulus Cinnamomi, possessed a synergistic effect with tetracycline, gentamycin, and streptomycin. In conclusion, the tested Chinese medical herbs have the potential to be developed into natural antibiotics. This is the first evaluation for screening large amounts of medical plants against nosocomial antibiotic resistant bacteria in Taiwan.

PMID: 18186590 DOI: 10.1142/S0192415X07005508

CDC's 'Nightmare Bacteria' Reveals Need for Natural Medicine

Posted on:

Thursday, March 7th 2013 at 11:15 am

Written By:

Sayer Ji, Founder

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

Globally, great fear has been generated by the CDC Director's recent description of a "Nightmare Bacteria" resistant to all medications, capable of killing 1 in every 2 people whose blood becomes infected with it. But isn't the primary problem that the drugs aren't working, and that natural medical solutions are needed now more than ever?

According to a recent CDC report titled, Lethal, Drug-resistant Bacteria Spreading in U.S. Healthcare Facilities, drug-resistant germs called carbapenem-resistant Enterobacteriacea, or CRE, are on the rise and resistant to all, or nearly all of the antibiotics within the conventional drug armamentarium.

The CDC describe CRE bacteria as a "triple threat":

- **Resistance:** CRE are resistant to all, or nearly all, the antibiotics we have - even our most powerful drugs of last-resort.
- **Death:** CRE have high mortality rates – CRE germs kill 1 in 2 patients who get bloodstream infections from them.
- **Spread of disease:** CRE easily transfer their antibiotic resistance to other bacteria. For example, carbapenem-resistant klebsiella can spread its drug-destroying weapons to a normal *E. coli* bacteria, which makes the *E.coli* resistant to antibiotics also. That could create a nightmare scenario since *E. coli* is the most common cause of urinary tract infections in healthy people.

Tom Fieden, MD, MPH, Director of the Centers for Disease Control and Prevention, generated quite a bit of alarm by referring to CRE as "nightmare bacteria":

CRE are nightmare bacteria. Our strongest antibiotics don't work and patients are left with potentially untreatable infections. Doctors, nurses, hospital leaders, and public health, must work together now to implement CDC's "detect and protect" strategy and stop these infections from spreading. [emphasis added]

'Nightmare Bacteria' or Rude Intellectual Awakening?

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

Truly this is a lesson in humility for the conventional medical system, and if the situation really is a "nightmare" as the CDC's Director describes, it will probably result in waking quite a few folks up, who despite appearing to have been awake were actually slumbering -- at least in the intellectual sense.

Drug resistance – an increasingly prevalent phenomena, whether we are talking about infection or cancer – is proving to the world that, except for emergency medicine and other rare exceptions, the drugs really don't work as advertised – at least not if the goal is to save lives. Suppressing or "treating" symptoms often results in turning acute health conditions into chronic ones, compounded by the subsequent poisoning by a battery xenobiotic (foreign to our biology) medications.

The fact that the majority of the drugs used as part of the conventional medical standard of care are xenobiotic petrochemical derivatives rarely gets acknowledged. Folks are being massively, collaterally poisoned in the war against germs and symptoms, and it is the "pathogens" and "diseases" that are being blamed and not our misguided effort to use poisons to fight conditions, most of which, if not being caused by poisoning or nutrient deficiencies and incompatibilities, are at least major contributing factors to them.

Declaring Chemical War Against Bacteria Blows Back

The "last resort" antibiotics known as Carbapenems are in a class of β-lactam antibiotics, the most widely used group of antibiotics, which target bacterial organisms by inhibiting cell wall biosynthesis. This drug class was originally developed from thienamycin, a naturally derived product of Steptomyces cattleya. **So, the inspiration behind it, like for most other classes of pharmaceuticals in existence today, was Nature.** But, Nature equips her creations equally with defenses in the ongoing struggle for balance among species. Bacteria are increasingly resistant to Carbapenems, producing an enzyme called beta-lactamase (more specifically, mettalo-beta-lactamase-1 (NDM-1)), which attacks the β-lactam ring within β-lactam antibiotics, reducing their antibacterial effect. The antibiotic resistant gene for NDM-1 is capable of being transferring horizontally between different bacteria, so it is spreading widely. Since NDM-1's first discovery in a Swedish patient of Indian origin in 2008, it has been detected throughout the world in countries such as Pakistan, India, Japan, Brazil, and the UK, US and Canada.

The CDC, and the conventional **drug-based medical establishment** it represents, is learning that chemical warfare against "germs" not only has severe limitations. In fact, it is **actually creating even stronger, more resistant bacteria**. **MRSA**, for instance, that terrible bogeyman of an infection, is an acronym for **M**ethicillin-**R**esistant **S**taphyloccous **A**eurus. It actually emerged within the context of the *overuse* of methicillin and other penicillin-type antibiotics; meaning, **it exists not despite of antibiotics, but because of them**.

Bacteria are far more resilient than multicellular organisms such as us. We consider ourselves much "higher" on the evolutionary ladder, but many strains have actually evolved capabilities that we do not have, such as **degrading pesticides** and chemicals like BPA for us. In fact, some unicellular organisms have even developed ways to use deadly radioactive waste (uranium-238) as an energy source! When we expose ourselves to chemotherapy (yes, antibiotics are chemical therapies), the subpopulation

within that bacterial colony that are resistant to these chemicals actually thrive, as competing organisms have been destroyed, and our own bacterial-mediated (probiotic) immune defenses decimated.

Even when you kill 99.99% of an infection, the .001% that develops resistance becomes several orders of magnitude more resistant to the original chemical that it survived. With time it will come back with a vengeance, assuming the predisposing factors associated with infectious disease susceptibility, e.g. nutrition, chemical exposures, stress, have not been rectified. Also, the chemicals themselves produce selective pressure upon the bacterial colonies, generating new strains of bacteria capable of overcoming chemical annihilation by expressing multidrug resistance genes.

The end result? Massive collateral damage: destruction of our largely probiotic-mediated innate and adaptive immune response to infection, chemical poisoning of the host, and the production of "super germs" within the bioreactor of the human alimentary canal. This is very similar to what happens with **chemotherapy/radiotherapy cancer resistance**, cancer expressing genes and behaviors that are pre-metazoan in quality, not unlike bacteria and bacterial colonies [see Paul Davies, Charles Lineweaver's Metazoa 1.0: taping the genes of ancient ancestors].

Drug-Based Medicine Humbly Bows to the Earth

Widespread drug resistance marks the end of a certain type of cavalier, medical hubris, and the start of authentic humility within the medical culture. Not only is the conventional medical establishment throwing up their hands in surrender against the "simplest" of organisms – germs – but they are being forced to return to Nature for instruction.

The word humility comes from the word humus, or "earth," and indeed, it is the earth which teaches us how to maintain our health. Take a recent study published in the *Korean Journal of Physiology and Pharmacology* titled, Anti-inflammatory and anti-superbacterial activity of polyphenols isolated from black raspberry, which found that the root of the black raspberry plant contains polyphenols which are lethal to methicillin-resistant Staphylococcus aureus (MRSA), **carbapenem-resistant** Acinetobacter baumannii (CRAB), and Bacillus anthracis (Anthrax). The black raspberry fruit did not exhibit these properties.

Why the root and not the fruit? The reason is that plants have actually designed their fruits to be eaten by specific species, and therefore are not as well armed against the same microbial threat that we humans also face interacting with the wild environment. Roots, on the other hand, are designed to enter directly into the soil, and derive nutrients directly through rhizomal interaction, which requires both a certain degree of permeability, and therefore extra chemical defenses. We discovered a similar process at play in the production of the defensive lectin compound in wheat known as **wheat germ agglutinin (WGA)** within the root tip and leaf tip of the sprouting wheat berry. WGA also has antibacterial, antifungal, anti-mammal, and yes, anti-animal/human properties as well.

So, if the humble raspberry plant can produce antibacterial compounds capable of killing carbapenem-resistant Acinetobacter, could it also kill the CDC's nightmare pathogen, carbapenem-resistant Enterobacteriaceae? Since

both bacteria are members of the class Gammaproteobacteria in the phylum Proteobacteria, it is definitely possible.

Basic Foods and Spices Found To Kill "Super Germs"

How many other natural, plant compounds are capable of this seemingly impossible feat of killing drug- and multi-drug resistant infections? The research on MRSA is encouraging. At GreenMedInfo.com we have indexed 49 natural compounds thus far with experimentally confirmed anti-MRSA properties, listed in alphabetical order below:

- **Allicin** (Garlic compound)
- Baicalein (Chinese Skullcap compound)
- Banana (Peel extract)
- Bay leaf
- Bee propolis
- **Bifidobacterium breve** (A probiotic)
- **Catechin** (antioxidant found in Acacia catechu and tea)
- Catnip
- **Cinnamaldehyde** (Cinnamon oil compound)
- Clove
- Cumin
- Curcumin (Primary polyphenol in Turmeric)
- EGCG (Polyphenol in tea)
- Elecampane
- Epicatechin (Polyphenol in tea)
- Eucalyptus
- Geranium
- Grapeseed Extract
- Grapefruit Seed Extract
- Honey (Ulmo)
- Kaempferol
- **Lactobacillus paracasei** (bacteriocin)
- Lavender
- Lemongrass
- Mango Seed
- **Mangosteen**

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

- **Manuka Honey**
- Nigella sativa (black seed)
- Norway spruce
- **Olive leaf extract**
- **Tabebuia**
- Peppermint
- Prickly Ash
- Resins
- Sage
- Sandalwood
- Silver (nanoparticles)
- Tea Tree
- **Thyme**

You can view all of these study abstracts without registering at **GreenMedInfo.com's MRSA research page**.

Other examples of so-called "nightmare" bacteria, which natural compounds have been found to kill, include:

- **Multi-drug Resistant Tuberculosis** (billed by the media as "The White Plague"): A 2011 study found that garlic has is able to kill this particularly resilient mycobacteria.[i]

- **Drug-resistant Urinary Tract Infections:** A 2005 study found that grapefruit seeds were capable of reversing multi-drug resistant Pseudomonas aerginosa urinary infection after two weeks of treatment in a male patient.[ii] Cranberry also appears to reduce the risk of urinary tract infections by inhibiting the biofilm formation typical of antibiotic resistant uropathogenic bacteria colonies.[iii]

- **Drug-resistant Infected Nipple (Lactation**): A 2010 study found that probiotics strains from breast milk are superior to antibiotics in the treatment of infectious mastitis.[iv]

- **Drug-resistant Helicobacter pylori:** A 2002 study found that the organosulfor compound in Cruciferous vegetables inhibits extracellular, intracellular and antibiotic-resistant strains of H. pylori, as well as preventing petrochemically-induced stomach tumors.[v]

- **Multi-drug resistant Pseudomonas aeruginosa:** A 2009 study found that pomegranate rind extract has antimicrobial activity against multi-drug resistant Pseudomonas aeruginosa.[vi] Water soluble green tea has also been found to have significant inhibitory activity against multi-drug resistant Pseudomonas aeruginosa.[vii]

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

- **Multi-drug resistant Acinetobacter baumannii:** A 2009 study found that fennel essential oil extracts had antimicrobial activity against multi-drug resistant Acinetobacter baumannii.[viii]

- **Multi-drug resistant Streptococcus mutans (oral pathogen):** A 2007 study found that garlic inhibits multi-drug resistant Streptococcus mutans, a bacteria known to be a major contributor to dental caries.[ix]

- **Multi-drug resistant Vibro cholera (cholera):** A 2007 study found that Guava leaf extract and bark had activity against multi-drug resistant Vibrio cholera, the organism responsible for cholera outbreaks.[x]

- **Multi-drug E.Coli, Klebsiella and Candida albicans:** A 2009 study found that Arabic tree, Cinnamon and Clove extract has antimicrobial activity against multi-drug resistant strains of E. Coli, Klebsiella and Candida albicans (yeast). [xi]

- **Drug-resistant Mycobacterium avium**: A 2003 study found that the exceptionally difficult to treat Mycobacterium avium was inhibited with juniper extracts.[xii]

There are a wide range of chemistries (often over 1,000) working in concert within plants that were evolved in order to provide elaborate defense systems against the same pathogens that afflict humans. When used intelligently, with correct medical supervision, these natural compounds can literally be life-saving. I believe that we are on the precipice of a natural medical Renaissance, and that this transformation is occurring by sheer necessity as one drug after another fails to produce the expected outcome. Drug and multi-drug resistant diseases are a sign of this, a healing crisis if you will, which if properly understood and responded to, will result in us arriving at a much better place.

As you can see by the studies cited above, Nature provides solutions that are often superior to results obtained by drugs – and these are increasingly being confirmed by "evidence-based" medicine. **Truly, the fact that we are alive here today is a direct result of pre-modern cultures, the world over, using used plant medicines to stay healthy.** If we are to remain here, especially in face of an increasingly impotent and incompetent medical system, we may have to rediscover them once again.

Resources

- [i] Abdul Hannan, Muhammad Ikram Ullah, Muhammad Usman, Shahid Hussain, Muhammad Absar, Khursheed Javed. **Anti-mycobacterial activity of garlic (Allium sativum) against multi-drug resistant and non-multi-drug resistant mycobacterium tuberculosis.** Pak J Pharm Sci. 2011 Jan;24(1):81-5. PMID: 21190924
- [ii] O A Oyelami, E A Agbakwuru, L A Adeyemi, G B Adedeji. **The effectiveness of grapefruit (Citrus paradisi) seeds in treating urinary tract infections.** J Altern Complement Med. 2005 Apr;11(2):369-71. PMID: 15865506
- [iii] G Reid, J Hsiehl, P Potter, J Mighton, D Lam, D Warren, J Stephenson. **Cranberry juice consumption may reduce biofilms on**

uroepithelial cells: pilot study in spinal cord injured patients. Spinal Cord. 2001 Jan;39(1):26-30. PMID: 11224011

- [iv] Rebeca Arroyo, Virginia Martín, Antonio Maldonado, Esther Jiménez, Leónides Fernández, Juan Miguel Rodríguez. **Treatment of infectious mastitis during lactation: antibiotics versus oral administration of Lactobacilli isolated from breast milk.** Clin Infect Dis. 2010 Jun 15 ;50(12):1551-8. PMID: 20455694
- [v] Jed W Fahey, Xavier Haristoy, Patrick M Dolan, Thomas W Kensler, Isabelle Scholtus, Katherine K Stephenson, Paul Talalay, Alain Lozniewski. **Sulforaphane inhibits extracellular, intracellular, and antibiotic-resistant strains of Helicobacter pylori and prevents benzo[a]pyrene-induced stomach tumors.** Proc Natl Acad Sci U S A. 2002 May 28;99(11):7610-5. PMID: 12032331
- [vi] Jed W Fahey, Xavier Haristoy, Patrick M Dolan, Thomas W Kensler, Isabelle Scholtus, Katherine K Stephenson, Paul Talalay, Alain Lozniewski. **Sulforaphane inhibits extracellular, intracellular, and antibiotic-resistant strains of Helicobacter pylori and prevents benzo[a]pyrene-induced stomach tumors.** Proc Natl Acad Sci U S A. 2002 May 28;99(11):7610-5. PMID: 12032331
- [vii] N Hosseini Jazani, Sh Shahabi, A Abdi Ali. **Antibacterial effects of water soluble green tea extracts on multi-antibiotic resistant isolates of Pseudomonas aeruginosa.** Pak J Biol Sci. 2007 May 1;10(9):1544-6. PMID: 19069973
- [viii] N H Jazani, M Zartoshti, H Babazadeh, N Ali-daiee, S Zarrin, S Hosseini. **Antibacterial effects of Iranian fennel essential oil on isolates of Acinetobacter baumannii.** Pak J Biol Sci. 2009 May 1;12(9):738-41. PMID: 19634482
- [ix] M M Fani, J Kohanteb, M Dayaghi. **Inhibitory activity of garlic (Allium sativum) extract on multidrug-resistant Streptococcus mutans.** J Indian Soc Pedod Prev Dent. 2007 Oct-Dec;25(4):164-8. PMID: 18007101
- [x] Niaz Rahim, Donald James Gomes, Haruo Watanabe, Sabita Rizwana Rahman, Chariya Chomvarin, Hubert Ph Endtz, Munirul Alam. **Antibacterial activity of Psidium guajava leaf and bark against multidrug-resistant Vibrio cholerae: implication for cholera control.** Jpn J Infect Dis. 2010 Jul;63(4):271-4. PMID: 20657067
- [xi] Rosina Khan, Barira Islam, Mohd Akram, Shazi Shakil, Anis Ahmad, S Manazir Ali, Mashiatullah Siddiqui, Asad U Khan. **Antimicrobial activity of five herbal extracts against multi drug resistant (MDR) strains of bacteria and fungus of clinical origin.** Molecules. 2009 Feb 4;14(2):586-97. PMID: 19214149
- [xii] Adelina Jimenez-Arellanes, Mariana Meckes, Raquel Ramirez, Javier Torres, Julieta Luna-Herrera. **Activity against multidrug-resistant Mycobacterium tuberculosis in Mexican plants used to treat respiratory diseases.** Phytother Res. 2003 Sep;17(8):903-8. PMID: 13680821
- http://www.downloads.imune.net/medicalbooks/The%20Nobel%20Prize%20in%20medicine%20has%20been%20awarded%20for%20cures%20against%20malaria%20and%20roundworms.pdf
- http://www.downloads.imune.net/medicalbooks/effects%20of%20chin%20ese%20herbs%20on%20Enterobacteriaceae.pdf

Natural Medicine for Super-Bugs that SINthetic Drugs have failed to deal with

- http://www.downloads.imune.net/medicalbooks/chinese%20herbs%20against%20superbugs.pdf
- http://www.downloads.imune.net/medicalbooks/The%20Nobel%20Prize%20in%20medicine%20has%20been%20awarded%20for%20cures%20against%20malaria%20and%20roundworms.pdf