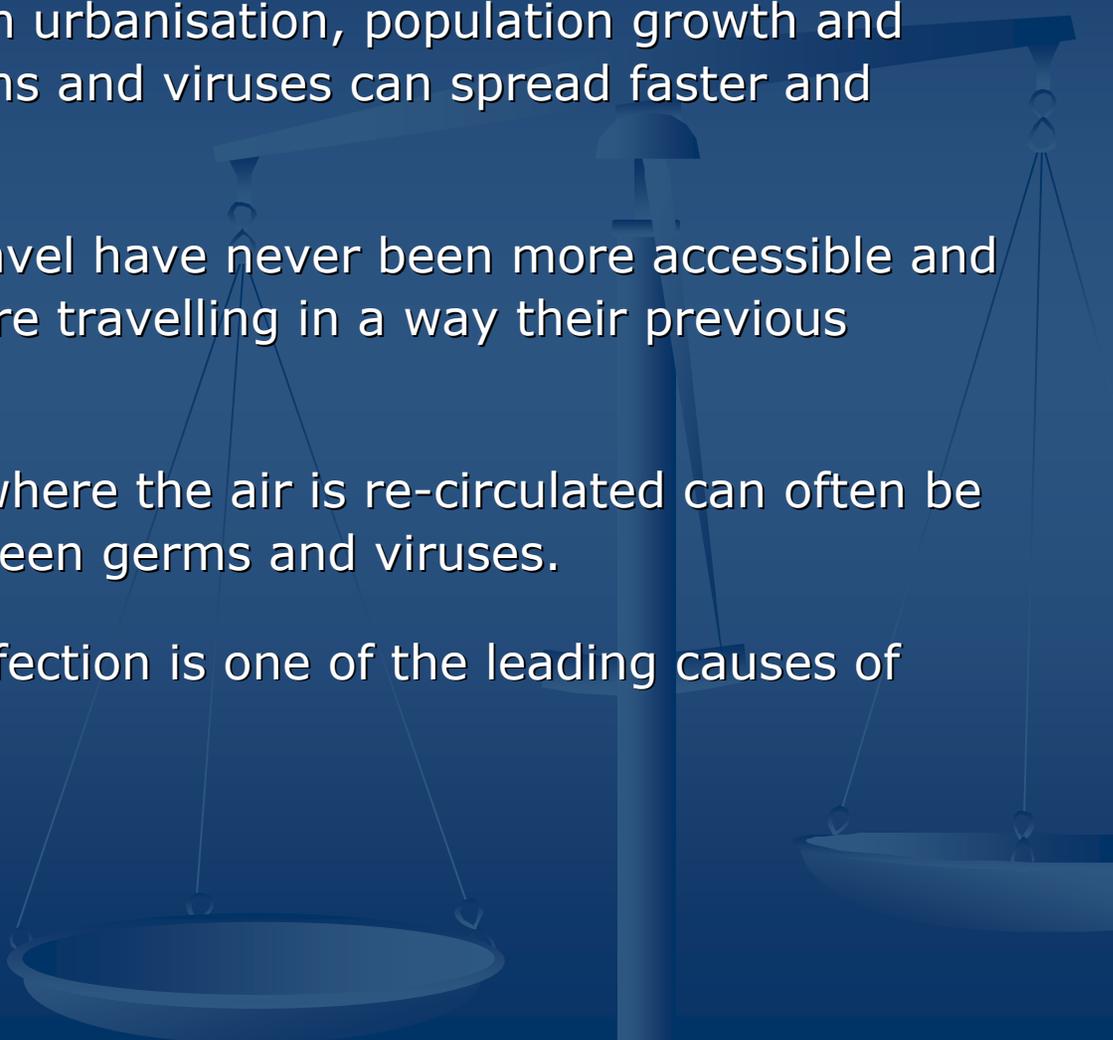


Introduction

- The continued increase in urbanisation, population growth and global travel means germs and viruses can spread faster and further than ever before.
 - Air, sea, rail and road travel have never been more accessible and more and more people are travelling in a way their previous generations never could.
 - Crowded environments where the air is re-circulated can often be heavily infected with unseen germs and viruses.
 - Seeking treatment for infection is one of the leading causes of doctor visits.
- 

The Problem

- The SARS outbreak of 2002 showed how air travel can have an important role in the rapid spread of newly emerging infections and could potentially even start pandemics.
- In 2009 the latest “potential pandemic” is Mexican Swine Fever with a few hundred dead in Mexico this week
- The average public transport seat is home to about 3 million bacteria of at least 70 different species.
- Most people when they touch any surface often then touch their nose or hair or cheeks and this can transfer infection very easily.
- Across the world approximately 2 billion people are infected with dormant infectious disease which can be spread by coughing.

Why a true Bird- or Swine Flu Pandemic is Highly Unlikely

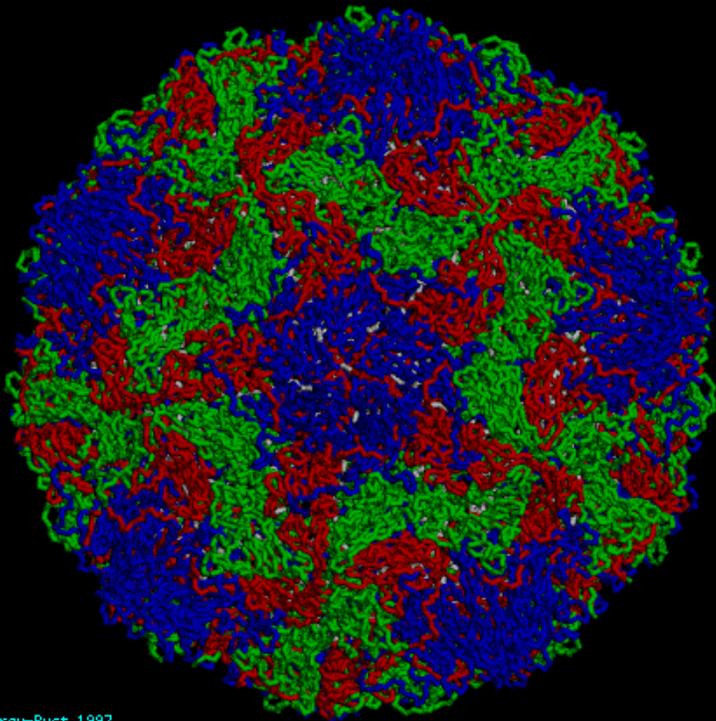
Dr Mercola reminds us of one very important fact here. Just a couple of months ago, scientists concluded that the 1918 flu pandemic that killed between 50-100 million people worldwide in a matter of 18 months -- which all these worst case scenarios are built upon -- was NOT due to the flu itself!

Instead, they discovered the real culprit was strep infections. People with influenza often get what is known as a "superinfection" with a bacterial agent. In 1918 it appears to have been *Streptococcus pneumoniae*.

Guess what safe natural product,
exclusive to LHN kills Penicillin Resistant
Streptococcus Pneumonia?????

Common rhino virus infects most people in the Western World

The outer coat of the common cold virus has icosahedral symmetry. The view is down a five-fold symmetry axis.



Murray-Rust 1997

- On average adults suffer 2-5 colds per year and school children 7-10 every year
- Rhino virus accounts for over 30% of all infection and coron virus for around 15%
- Stress is now seen as a major factor in influencing susceptibility to infection
- Immune system antibody production is very specific so repeat infections are very common

COLD WAR ATTACK

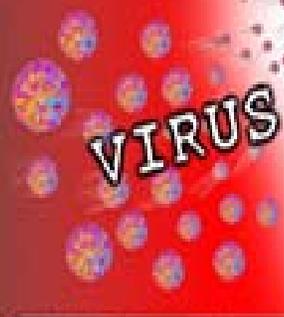
Stage 1: INFECTION
 BILLIONS of germs are released when someone with a cold sneezes or coughs.
 These can be inhaled in the air or picked up on your fingers and transferred to your nose or eyes when you touch your face. These can be picked up on the skin if you touch up on your fingers and transferred to your nose or eyes.

Stage 2: 24-48 HOURS AFTER INFECTION
 A cold virus multiplies rapidly in the cells lining the nose and throat.
 White blood cells rush to the area to repair the attack and to contain inflammation.

Stage 3: DAY 2 OR 3
 INFLAMMATION triggers the production of chemicals called prostaglandins which are responsible for cold symptoms such as sore throat, runny nose and a cough.
 Blood vessels in the nasal passage swell, causing a blocked nose. White blood cells release proteins called cytokines which cause headache, loss of appetite, aching muscles and fever.



White blood cell
 Virus



BOOST YOUR DEFENCES

CLEAN UP YOUR ACT
 Cold, influenza and other viruses that cause colds are spread easily in close contact. To help stop a germ, get rid of your hands. Wash your hands regularly, at least once a day, and after you've been in public places, before you eat, and after you've been in contact with someone who has a cold.

WATER WORKS
 Drinking lots of water keeps your throat moist, helps you breathe, and keeps your immune system strong. It also helps you stay hydrated, which is important for your body to fight off viruses.

KEEP YOUR COOL
 Cold viruses are more likely to spread in dry air. So, keep your home or office humid. Use a humidifier or place a bowl of water near a heater. This helps keep your throat moist and your immune system strong.

WARM UP YOUR NOSE
 Inhaling steam from a bowl of hot water can help loosen mucus and soothe your throat. It also helps you breathe easier and keeps your immune system strong.

WARM UP YOUR NOSE
 Inhaling steam from a bowl of hot water can help loosen mucus and soothe your throat. It also helps you breathe easier and keeps your immune system strong.



..AND DEFEAT THE ENEMY

TRADITIONAL METHODS
 Hot fluids, honey, lemon, and salt water are traditional remedies for colds. They help soothe the throat and keep you hydrated.

HERBS
 Echinacea, garlic, and ginger are believed to have immune-boosting properties.

PROBIOTICS
 These are good bacteria that help support a healthy immune system.

PELARGONIUM
 This herb is known for its antiviral properties and may help fight off cold viruses.

FACT OR FICTION?

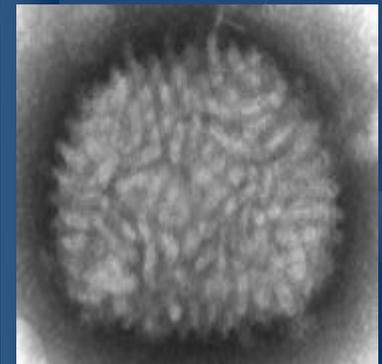
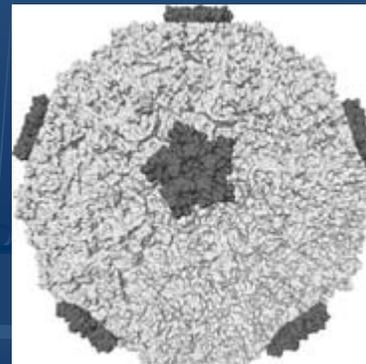
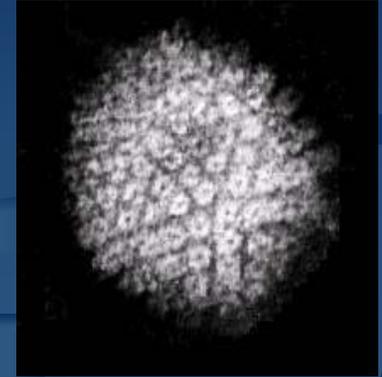
Stage 4: DAY 4 ONWARDS

Mexican Swine Flu

- H1N1 strain similar to Spanish flu – targeted at 20-45 yr olds
- Symptoms in patients infected in the USA and Europe appear to be relatively mild and include a sore throat, sneezing and coughing.
- Swine flu is very easily spread by coughing sneezing or coming into close contact with someone who is already infected.
- Stabilised allicin as found in Allicin-C™ is an excellent natural antiviral agent that has been proven in double blind placebo controlled studies to both PREVENT the onset of viral disease and to remove symptoms in patients already infected.
- Take 4-6 Allicin-C capsules daily to act as a preventative.
- Try to avoid contact with people who are showing active infection and wash your hands thoroughly with soap and then apply a protective layer of Alliderm every day.

Other virus's killed by Allicin-C®

- Herpes virus type 1 and 2
- Parainfluenza virus type 3
- Vaccinia virus (smallpox)
- Human rhinovirus
- Vesicular stomatitis virus



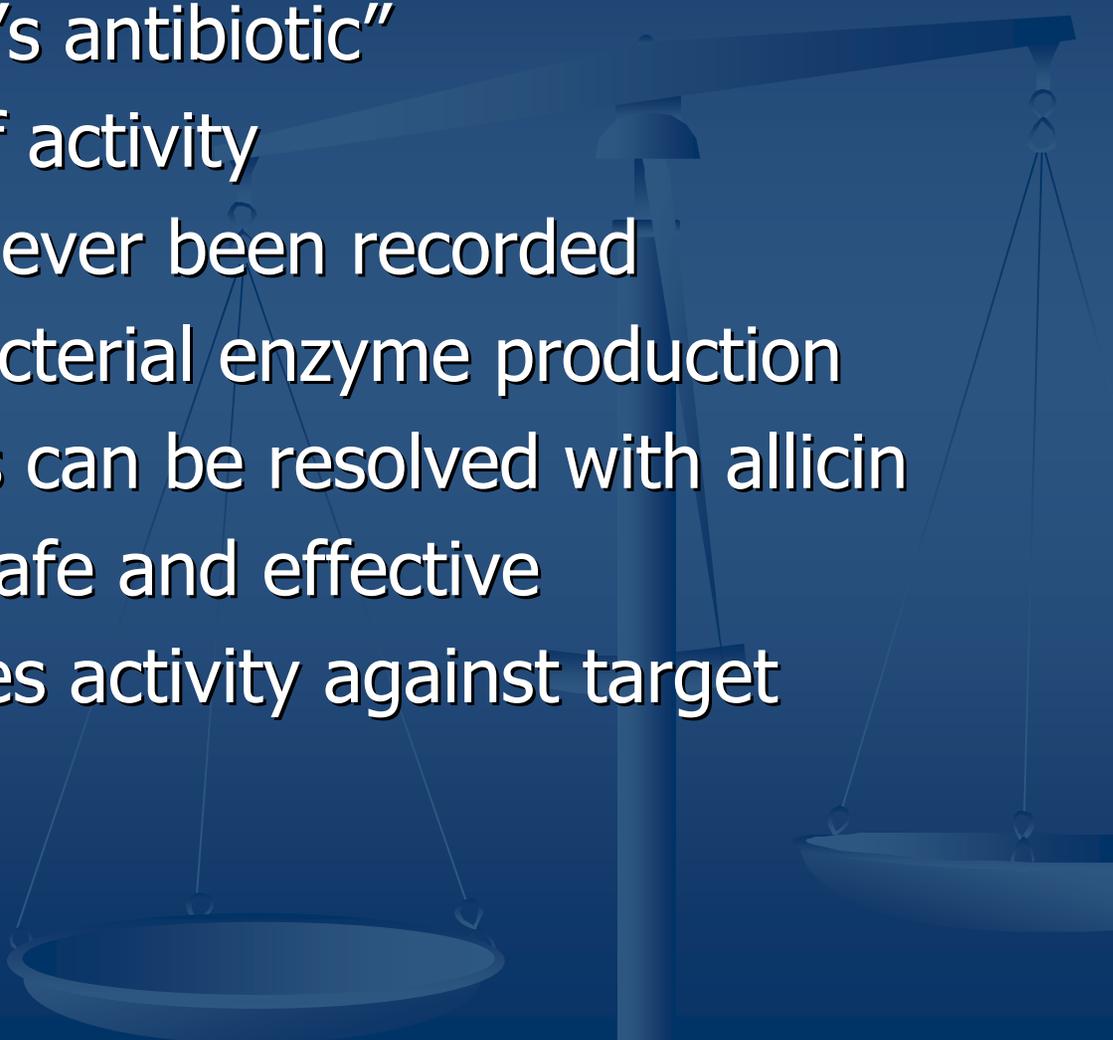
Why add Vitamin C?

Allicin-C™ helps to modulate your immune function

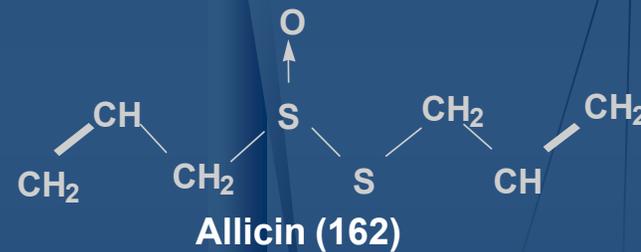
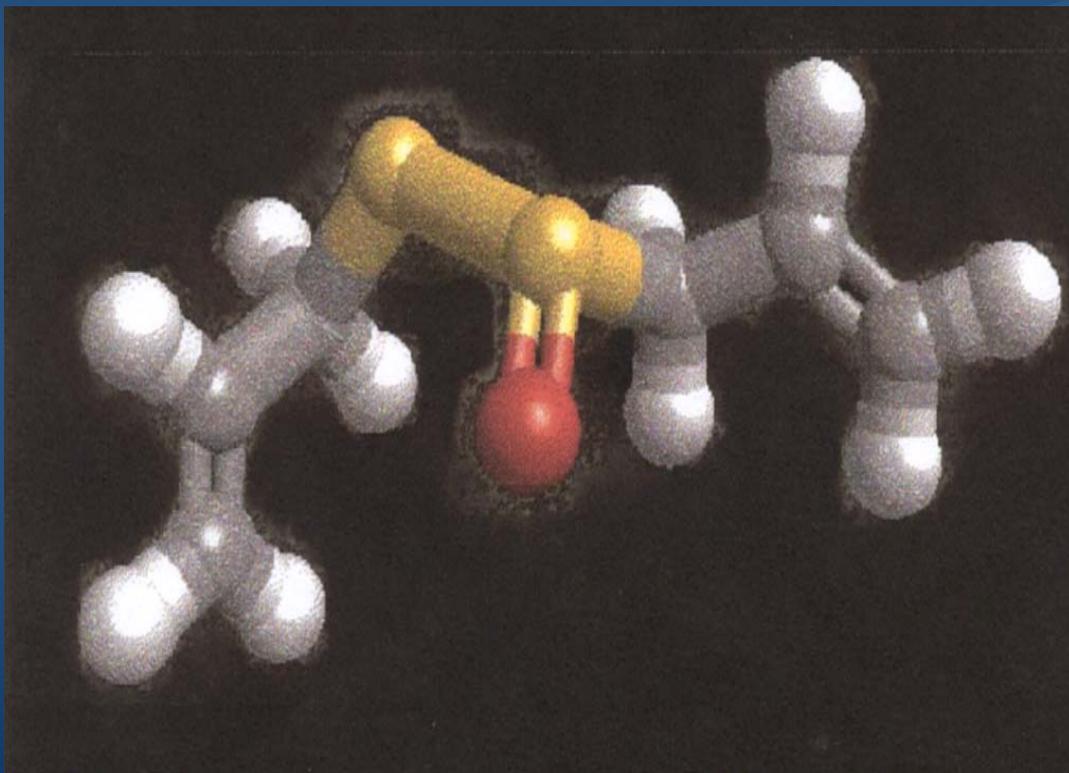
Allicin and Vitamin C synergise with each other giving greater benefits working together

Vitamin C adds to the antimicrobial activity and is an antioxidant

Allicin and Vitamin C as a modern anti-microbial agent

- Known as “Nature’s antibiotic”
 - Broad spectrum of activity
 - No resistance has ever been recorded
 - Allicin prevents bacterial enzyme production
 - Problem infections can be resolved with allicin
 - Allicin is natural, safe and effective
 - Vitamin C enhances activity against target organisms
- 

Chemical Structure of Allicin - $C_6H_{10}S_2O$





When and where to use?

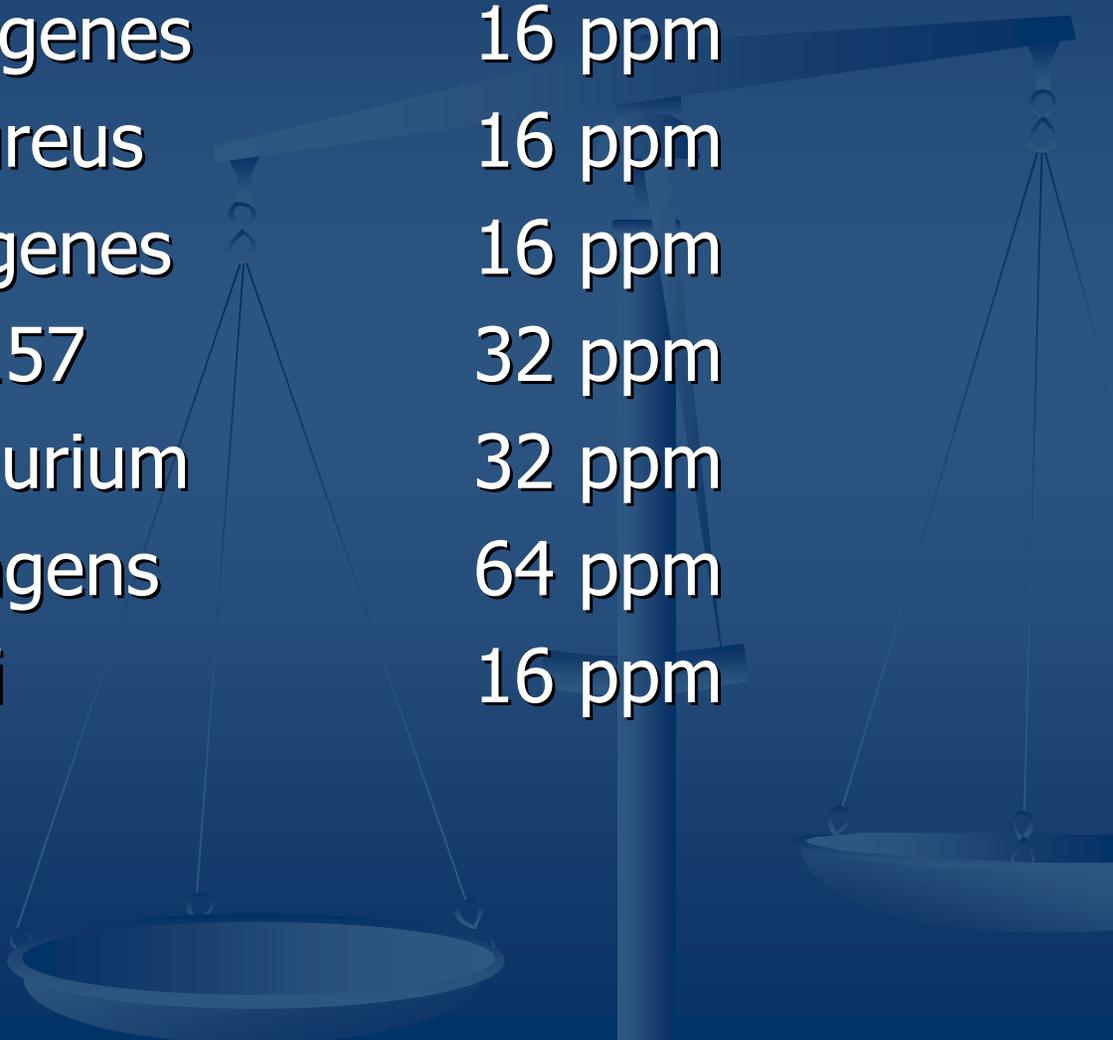
Alliderm™

When and where to use

LHN Alliderm™ contents

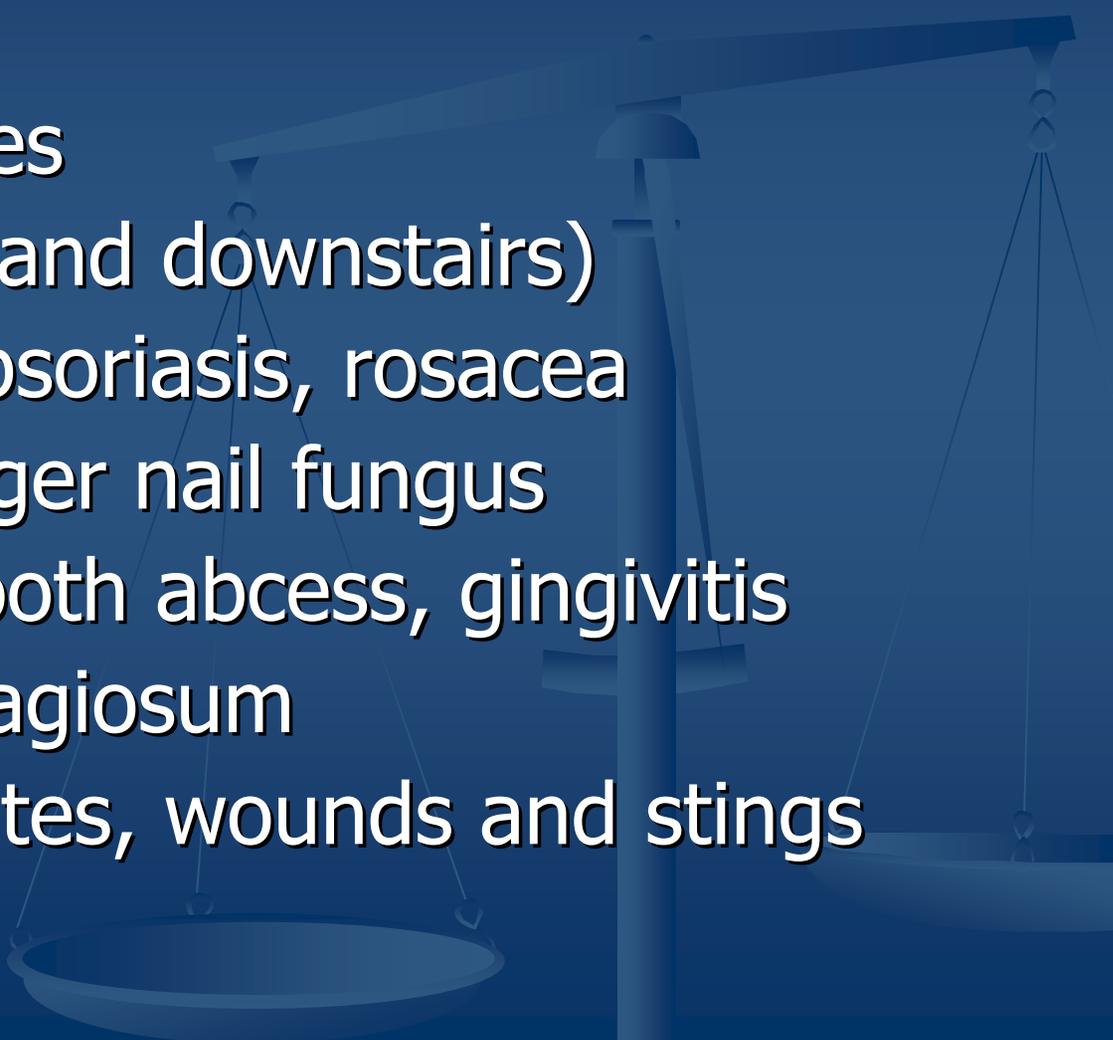
Aqua, Aloe barbadensis, Allicin liquidum,
Glycerin, Sodium Ascorbyl Phosphate,
Sodium hydroxymethylglycinate,
Dehydro-xanthan gum, Citric acid

MIC (ppm allicin) for some problem bacteria

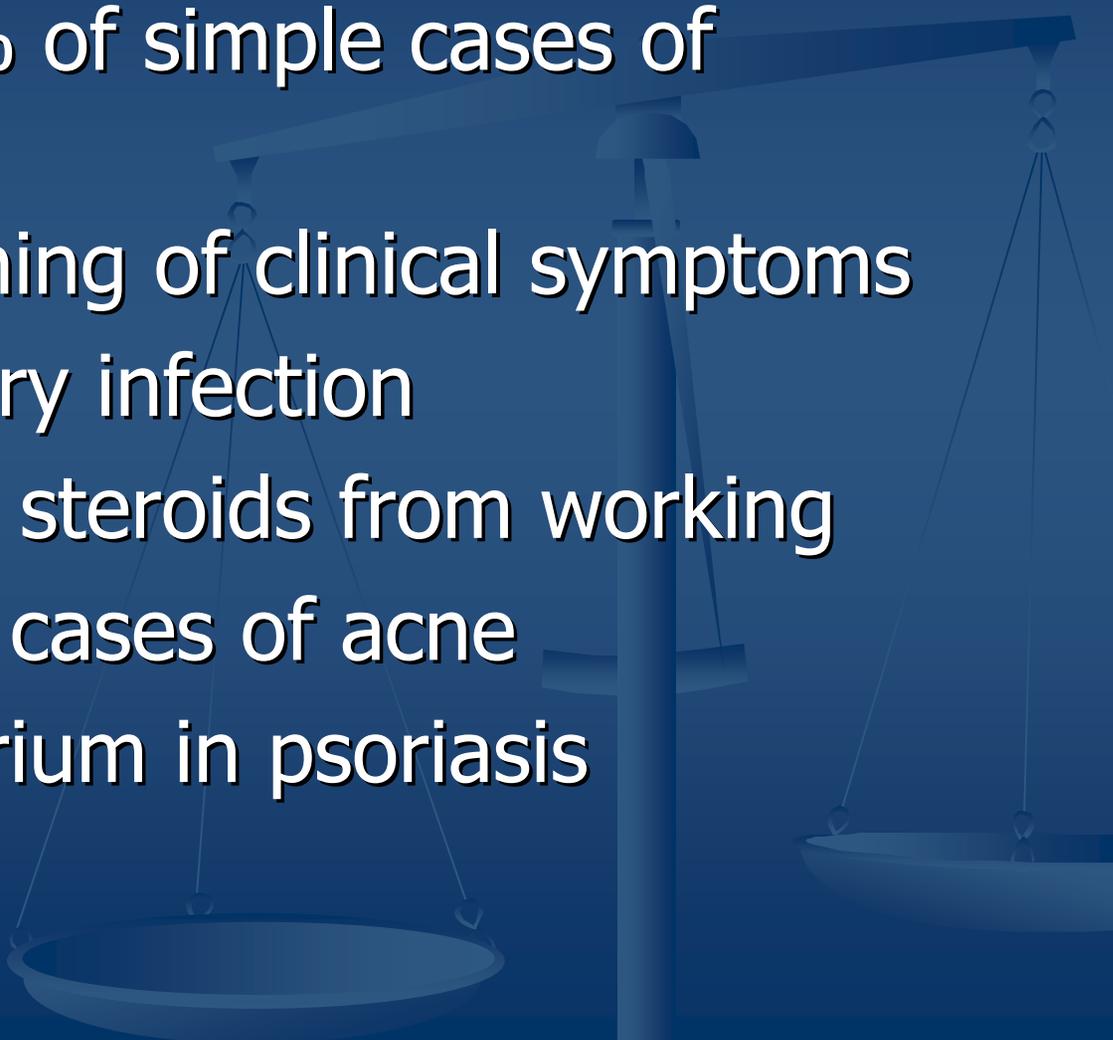


■ Streptococcus pyogenes	16 ppm
■ Staphylococcus aureus	16 ppm
■ Listeria monocytogenes	16 ppm
■ Escherichia coli 0157	32 ppm
■ Salmonella typhimurium	32 ppm
■ Clostridium perfringens	64 ppm
■ Helicobacter pylori	16 ppm

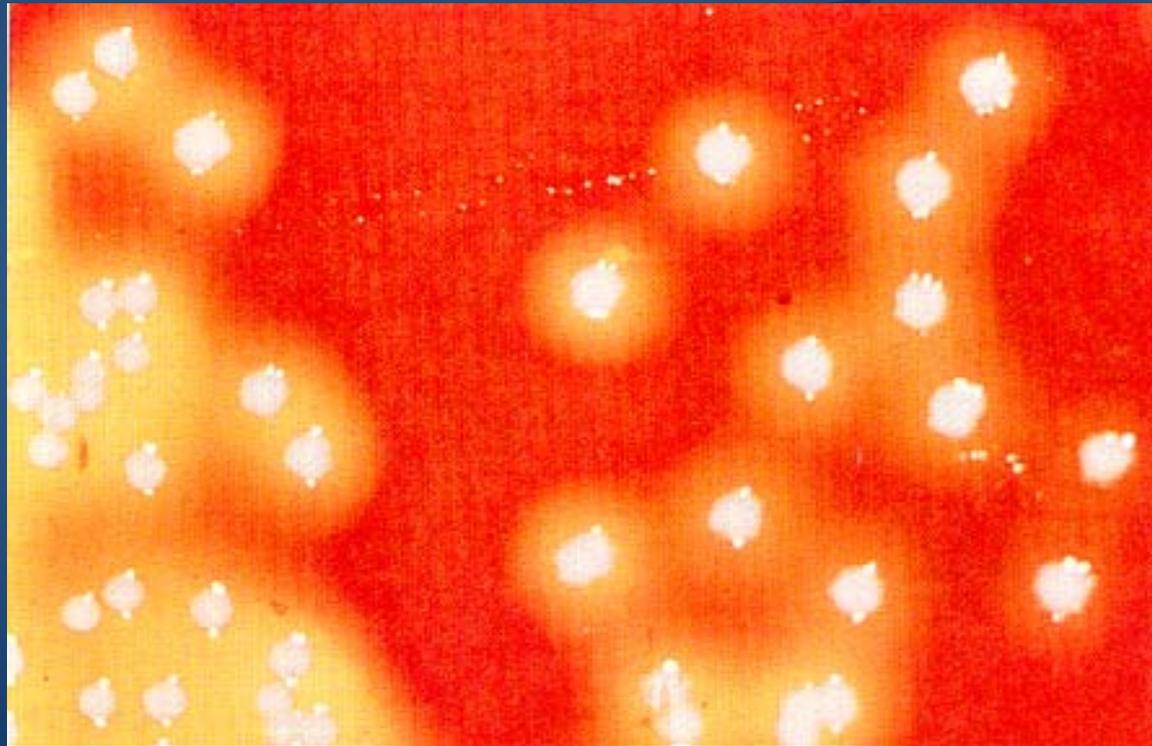
Topical use of **Alliderm™**

- Headlice
 - Herpes cold sores
 - Warts (upstairs and downstairs)
 - Acne, eczema, psoriasis, rosacea
 - Toe nail and finger nail fungus
 - Mouth ulcers, tooth abcess, gingivitis
 - Molluscum contagiosum
 - Cuts, bruises, bites, wounds and stings
- 

Staphylococcus aureus

- Involved in 95% of simple cases of eczema
 - Leads to worsening of clinical symptoms
 - Causes secondary infection
 - Prevents topical steroids from working
 - Present in most cases of acne
 - Prevalant bacterium in psoriasis
- 

Staphylococcus aureus - The “Golden” Bacterium



Staphylococcus aureus

- Involved in 95% of simple cases of eczema, acne and psoriasis
- Leads to worsening of clinical symptoms
- Causes secondary infection
- Prevents topical steroids from working
- Present in most cases of acne
- Prevalant bacterium in psoriasis

MIRSA

Each year, 100,000 people catch an infection in hospital. Of these, 5,000 die – more than are killed on the roads. It's one of the worst rates in the world. So is there a cure?

By JEREMY LARWOOD
AND COLIN BARRON

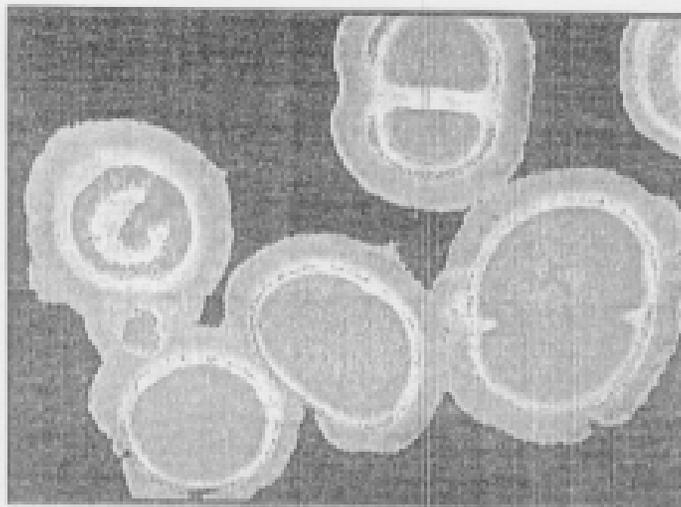
EVERY YEAR 5,000 patients in hospitals in Britain die from an infection acquired after they were admitted.

Up to 100,000 more – almost one in 10 inpatients – suffer extended illness, pain and suffering caused by bugs they contract in the place where they come for a cure.

The number of deaths exceeds that from road accidents, and that from drugs and HIV/AIDS combined. Our rate of infection is among the highest in the world, above that of Australia, Denmark, Norway, the Netherlands and Spain. It costs the NHS more than a billion a year.

Today the Government will launch its latest consultation on how to improve its control of hospital infections, of which the worst is MRSA (methicillin-resistant *Staphylococcus aureus*). Lord Warner, a health minister, will launch a guide for hospitals, setting out how every part of the institutional environment should be cleaned. Hospitals are to be ranked in a league table on food standards and cleanliness.

The Tories accused the Government last night of wobble dancing and claimed this was the final in-



A cluster of MRSA bacterial cells, with some dividing. It is a common infection in hospitals

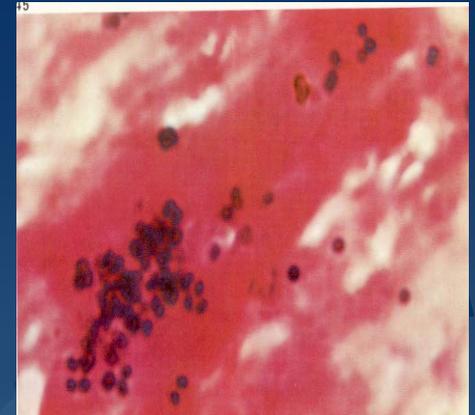
tative on hospital infections announced to cut the death toll above the Government came to power. Michael Howard, the Conservative leader, has made action on MRSA one of the Tories' top priorities for the general election. In an article today in *The Independent*, he describes how his number-in-law died of the disease.

The Tory health spokesman, Andrew Laming, said: "It is a national scandal. Over the last seven years, deaths from MRSA have doubled. It has been clear for years that the actions required included closing wards and giving patients the right to refuse hospital or wards where there is infection. Nurses should have the power to stop admissions to wards."

For people like Cheryl Moore, the measures are too late. She is recovering from brain surgery in Cambridge with her first child, born by Caesarean on 21 June, who was washed back after a black rash appeared around the wound. She spent 11 weeks battling against infection with MRSA and other bugs, but she died in September.

The best way of saving people such as Mrs Moore is with hygiene – but simple procedures are still not being practised. One in three people

Continued on page 4



Ancient remedy defeats menace threatening hospitals

Garlic cure hailed as a breakthrough in killer bug battle

By Richard Creasy

HOSPITAL patients with the superbug MRSA have been cured after being treated with humble garlic.

Ingredients of the wild herb, known for centuries to be good for health, were administered to a test group of 12 people ill with Methicillin Resistant Staphylococcus Aureus and doctors were astonished at the success rate.

We reported in November that three-month trials with 200 volunteers were being undertaken at hospitals in London and the South-east.

Dr Ron Cutler, the man behind the research, said: "We are confident we have found the answer and it comes in a treatment used up to 3,000 years ago."

"Garlic was used by the Egyptians to cure all sorts of ailments and the results we have had so far are 100 per cent and extremely encouraging."

"Some of our patients have been very ill and they have responded well within a few weeks, sometimes within days."

"We need to get on top of this bug because it is killing 2,000 people in UK hospitals every year."

Probation officer Deborah Brown developed seeping wounds on her back after she had a spinal operation in November 2000 that was confirmed as MRSA. The 34-year-old from Rainham, Kent was in great pain for two years as the sores refused to heal. The bug had driven her into a deep depression and she feared she would never recover. She had repeatedly taken both oral



Picture: MIKE GUNNILL

TRANSFORMATION: Deborah Brown says her whole life has changed since she started taking the allixin treatment. Below, how we broke the news of Dr Cutler's clinical trials

Garlic blitz on hospital superbug



antibiotics and used creams without effect.

In December 2002 her mother heard about Dr Cutler's work and contacted the microbiologist to see if he could help.

Deborah explained: "I got a course of cream and capsules in the post. Within two months, the MRSA had mostly cleared and the wounds had begun to heal. The effect of the treatment was dramatic. I had become increasingly desperate as the MRSA was

not responding to antibiotics. "I am the proof that it works. I have been given my life back."

The groundbreaking work is being spearheaded by Dr Cutler and three researchers in laboratories at the University of East London in Stratford.

They discovered that allixin, a naturally-occurring ingredient of garlic which causes its distinctive aroma, kills the MRSA bug and other superbugs that have developed resistance to antibiotics.

Dr Cutler's results suggest an

easy to use nasal cream can help defeat the bug. The allixin compound, available through the post without a prescription, can also be given in oral capsules.

Dr Cutler added: "The reaction of some GPs will be that it is all voodoo-style nonsense. That is why we are starting these clinical trials with 200 anonymous volunteers."

"The results from a controlled group like that should convince everyone. We have yet to find anything resistant to garlic."

Where it all began with real patients



Debra's wounds - open on the right but after treatment on the left both long standing wounds had closed and no further procedures were required

Allicin kills Staph. aureus

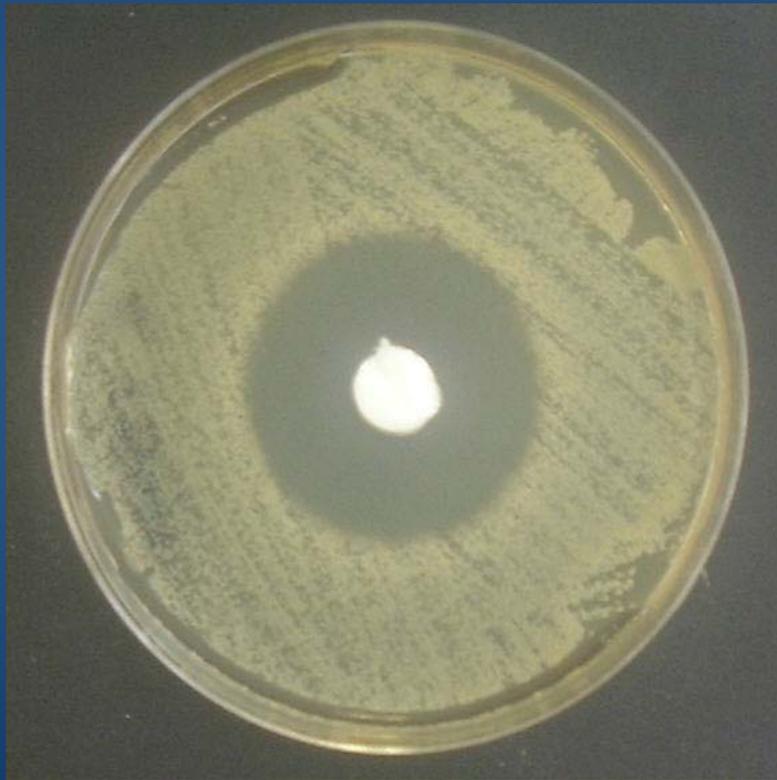
- Work completed at The University of East London
- 30 bacterial strains were tested 12 were resistant to pharmaceutical antibiotics
- ALL strains were sensitive to Allicin
- Published in June 2004 in The Journal of Biomedical Science

MICs / MBCs of MRSA to AAE

The control strain tested (the Oxford *Staph aureus*) gave an MIC of 32 $\mu\text{g/ml}$ and an MBC of 256 $\mu\text{g/ml}$

	MIC 16 mg/l	MIC 32 mg/l	<i>TOTALS</i>
MBC 128 mg/l	76%	12%	88%
MBC 256 mg/l	12%	0	12%
<i>TOTALS</i>	88%	12%	100%

Allicin vs MUPIROCIN (a pharmaceutical antibiotic)



Case history – before treatment

- Female, 14 yrs old 2 pins inserted wounds failed to heal for 18 months. Patient had several courses of antibiotics with no effect. Surgeons were keen to readmit her and replace the pins and deal with the infection. We tested her as ++MRSA sensitive to allicin



Case history after treatment

- **Treatment was 1800 mg of allicin powder daily in divided doses (Allicin-C only) for a period of 4 weeks. No creams or spray were needed in this case. Swabs post treatment showed no MRSA infection present in the healed area, groin or nasal cavity**



What does this mean to patients?



You get your life back!

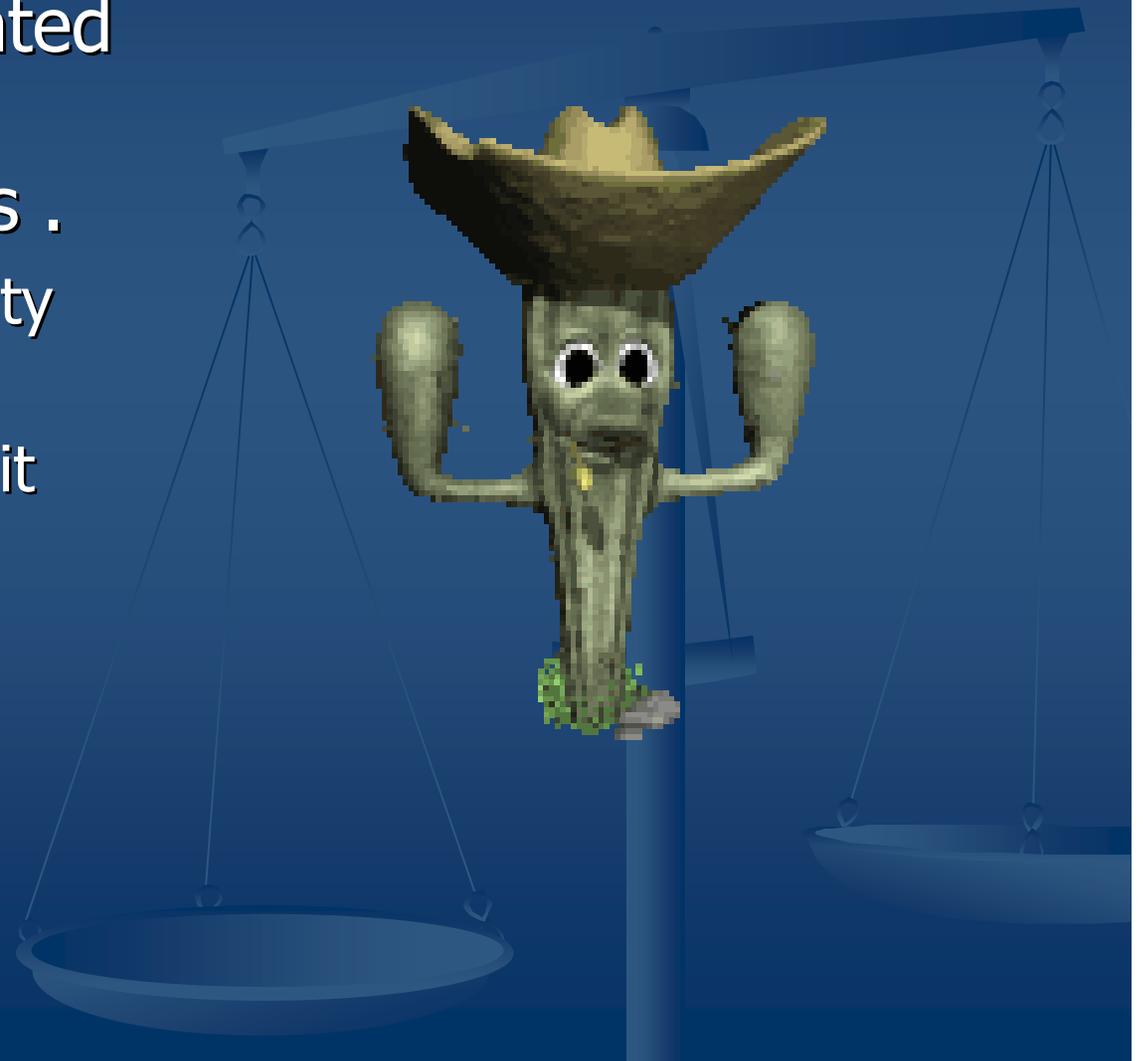


Effect of a novel aqueous extract of allicin against Group B Streptococcus (*Streptococcus agalactiae*)

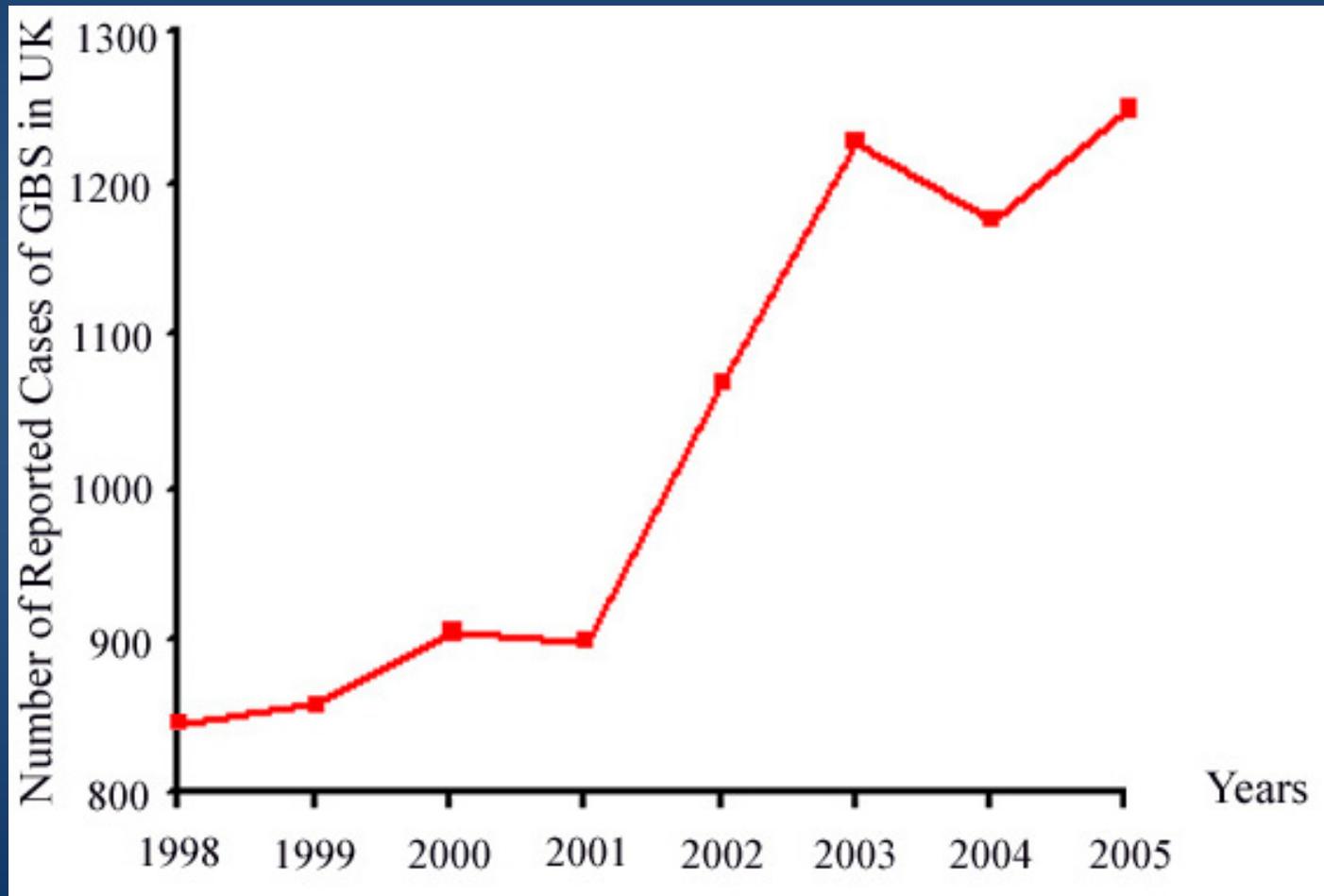


Biological Activity

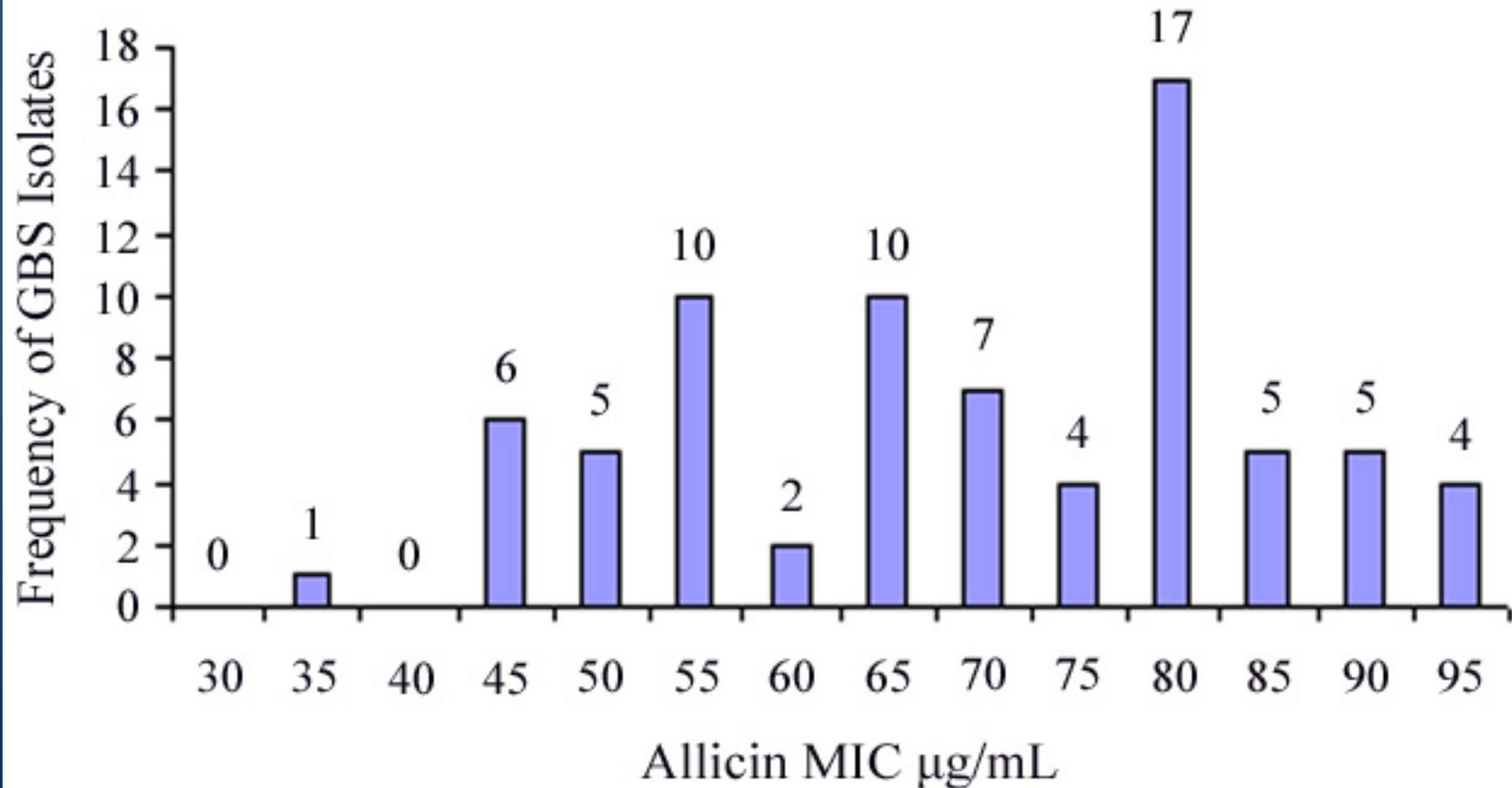
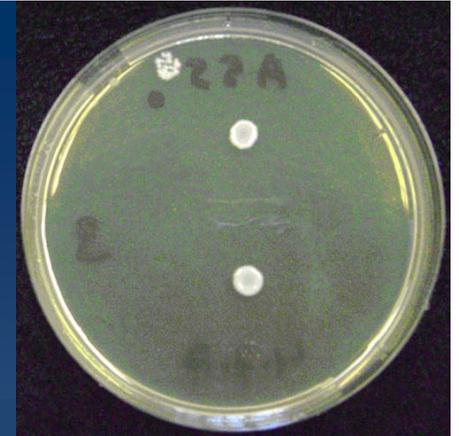
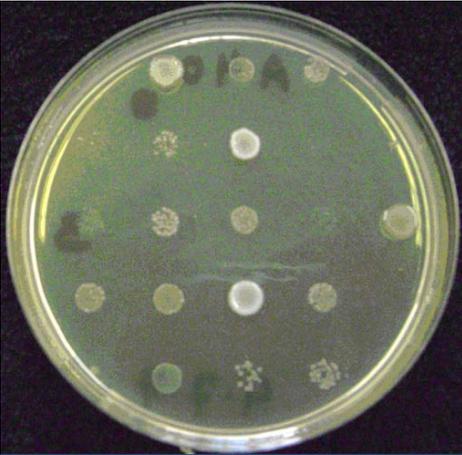
- We have investigated different types of biological activities .
 - antibacterial activity and
 - the ability to inhibit bacterial enzyme activity



Incidence of group B Streptococcus in UK between 1998 and 2005



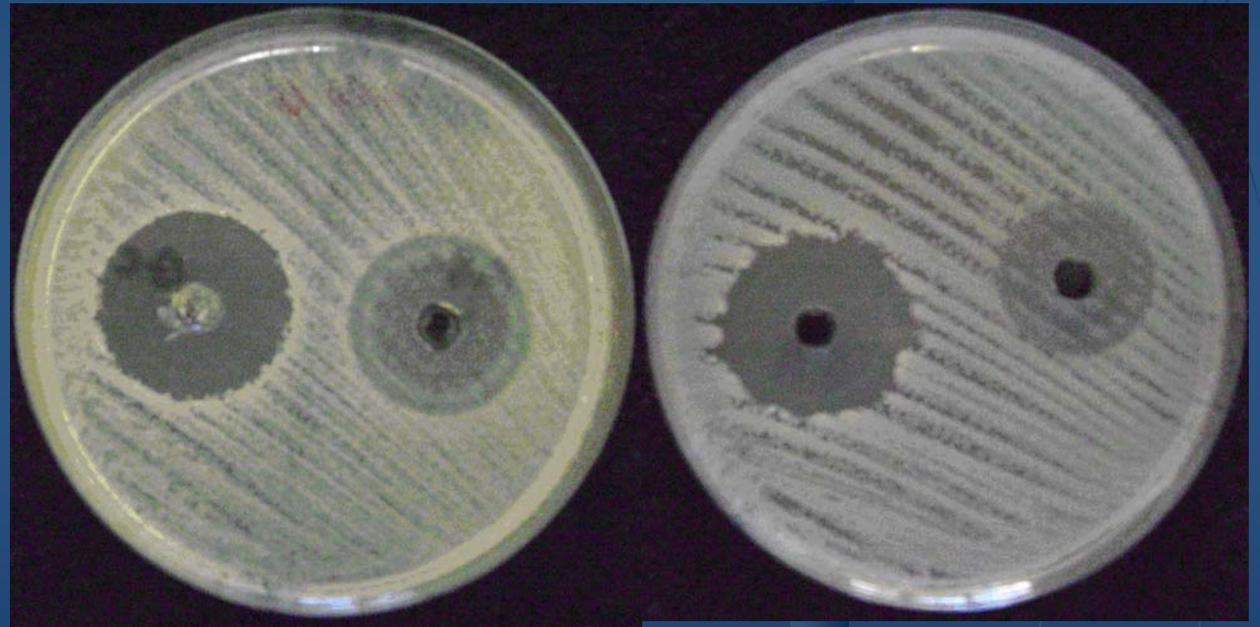
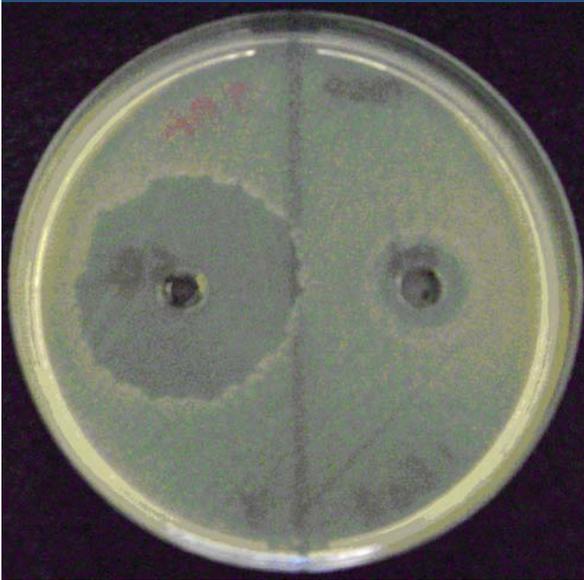
MICs of Group B Streptococcus against Alliderm™



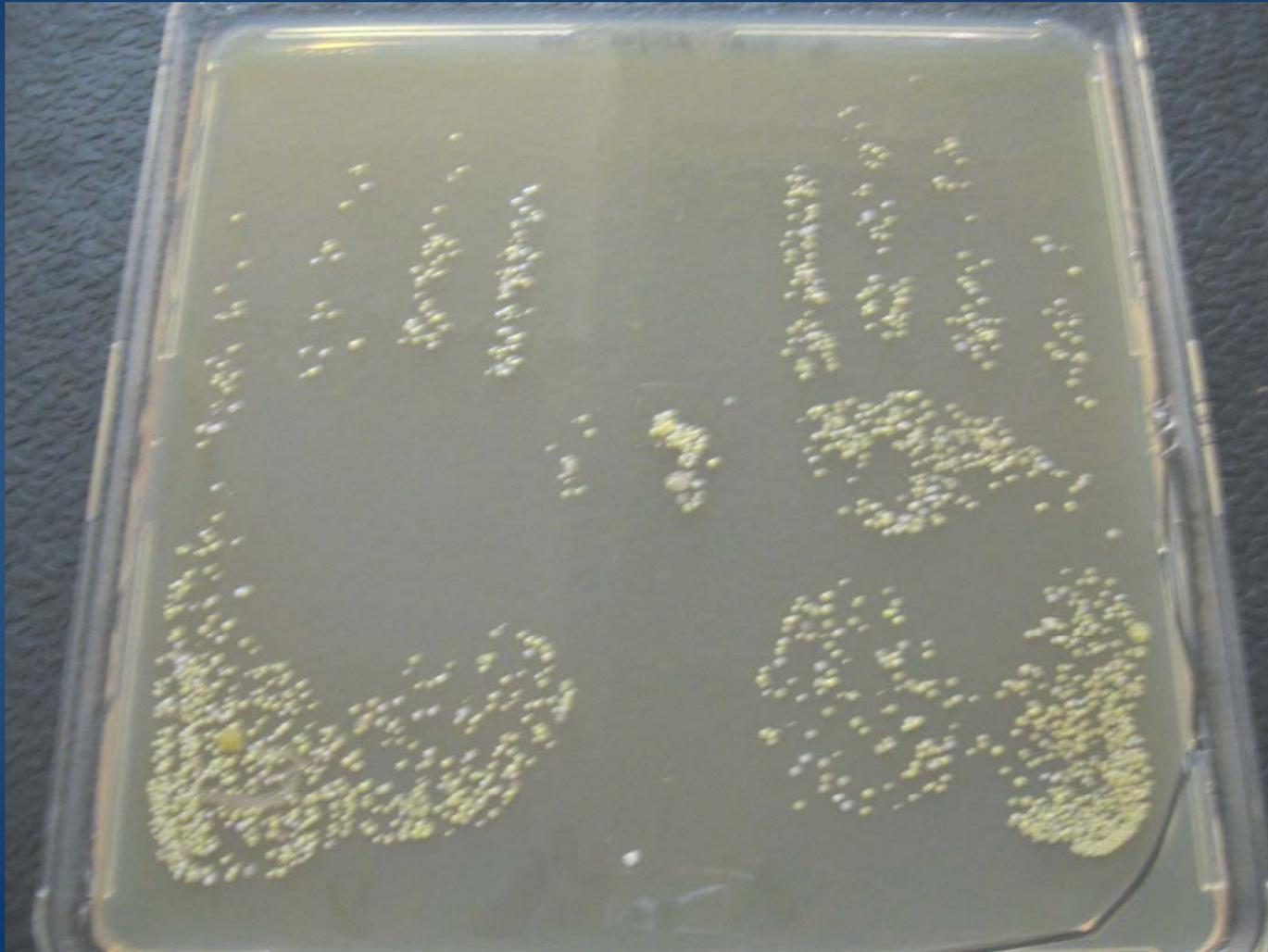
Minimum Bactericidal Concentrations

- Aqueous Allicin Extract is active against Group B Streptococcus a dangerous bacteria
- MICs were between 35 and 95 $\mu\text{g}/\text{mL}$ (average 69.47 $\mu\text{g}/\text{mL}$). 88% of the isolates had MBCs between 78 and 156 $\mu\text{g}/\text{mL}$
- A novel gel formulation has been developed that maximises the activity of AAE. This gel is designed to be used as a topical agent.
- Work peer reviewed and published in JAC – Journal of Antimicrobial Chemotherapy 11/2008

Gel Formulation



Hand washing experiments T 0hr



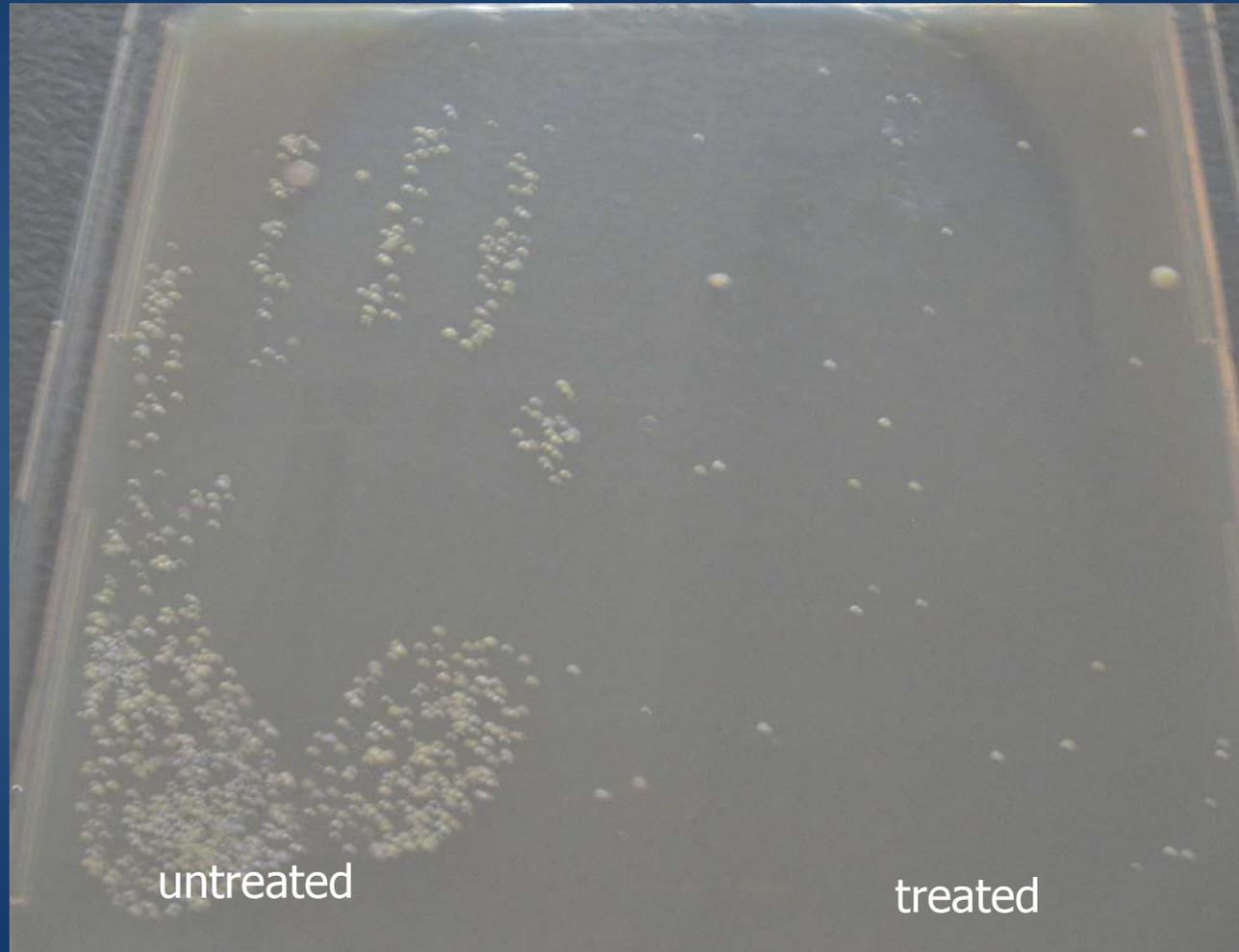
Both hands at the start of the test loaded with germs

Hand washing experiments T+1hr



Both hands were washed and one had Alliderm™ applied

Hand washing experiments T +2hr



No growth on the hand treated with Alliderm™ applied

Summary

- Alliderm™ can be used topically or internally for a very wide range of conditions
- Alliderm™ can be used to protect your hands (and other exposed skin surfaces) from infectious organisms
- Alliderm™ heals wounds very quickly and helps to prevent scarring
- Alliderm™ is safe and easy to use and does not contain alcohol so will not damage your skin