

Following in her foot steps



Brief History...1800's

Florence Nightingale - famous for revolutionising nursing.

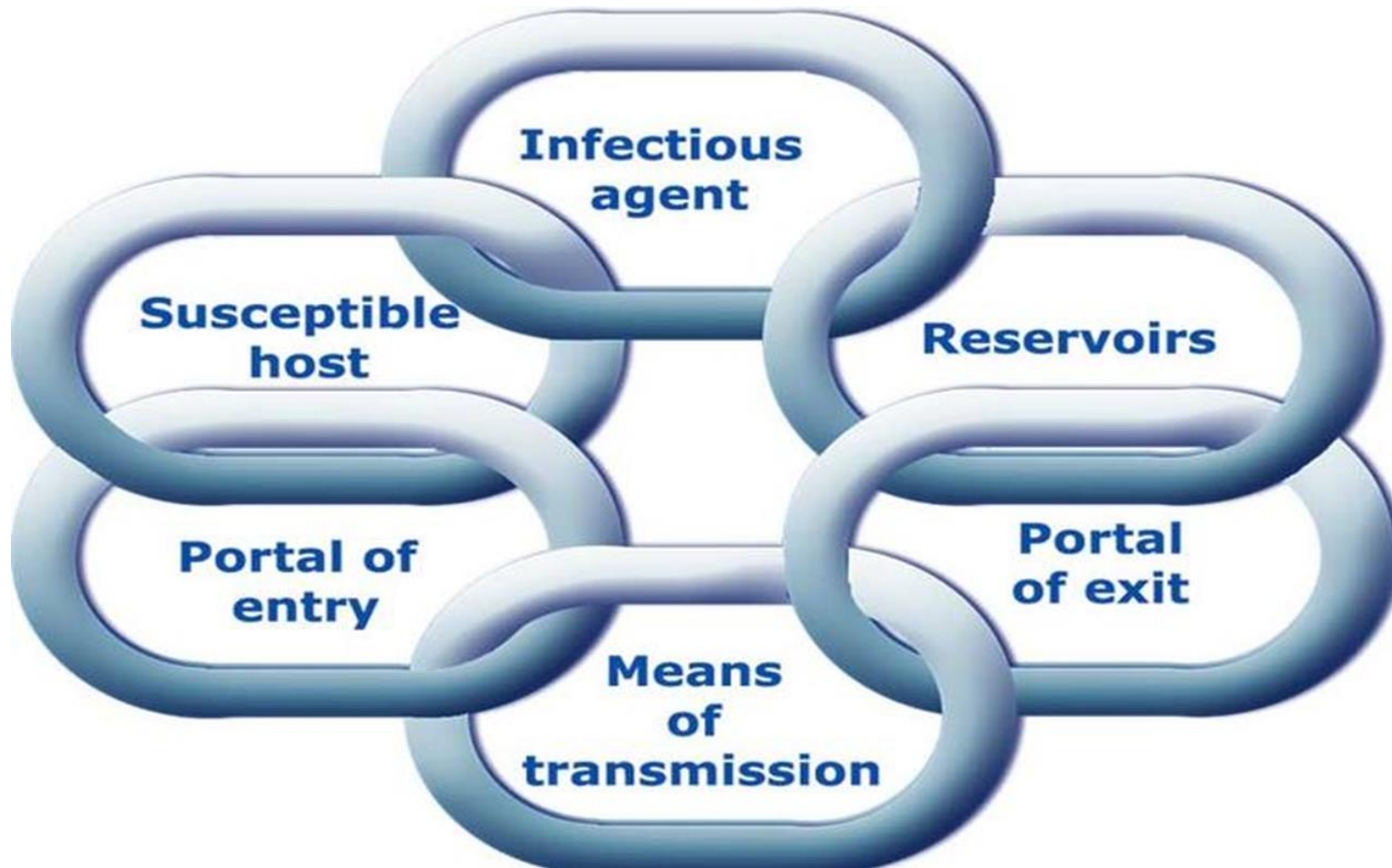
it is believed that the sanitary improvements resulted in a reduction of the death rates from 42% to 2%.

Before Nightingale 10 times more soldiers died from illnesses and infections than from battle wounds-

1854 - recorded poor care being delivered to wounded soldiers, hygiene being neglected and mass infections were common, many of them fatal.

With support from the government and sanitary commission Nightingale implemented improvements in the environment, cleaning the sewers, getting clean linen, hand washing and other sanitary practices within the war hospital

Chain of infection



Next Sick Person

(Susceptible Host)

- Babies
- Children
- Elderly
- People with a weakened immune system
- Unimmunized people
- Anyone

How Germs Get In

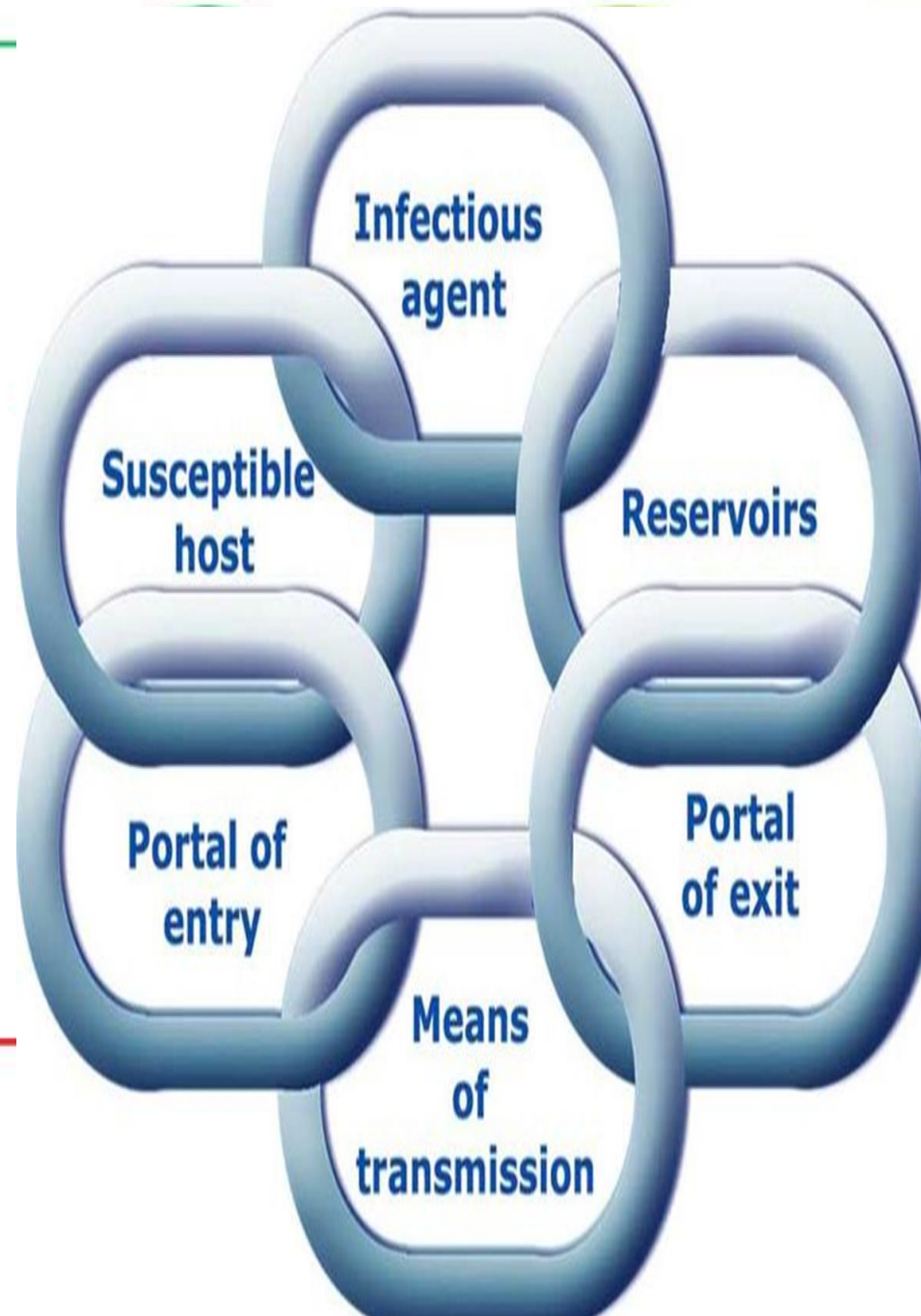
(Portal of Entry)

- Mouth
- Cuts in the skin
- Eyes

Germs Get Around

(Mode of Transmission)

- Contact (hands, toys, sand)
- Droplets (when you speak, sneeze or cough)



Germs

(Agent)

- Bacteria
- Viruses
- Parasites

Where Germs Live

(Reservoir)

- People
- Animals/Pets (dogs, cats, reptiles)
- Wild animals
- Food
- Soil
- Water

Where Germs Get Out

(Portal of Exit)

Mouth (vomit, saliva)
Cuts in the skin (blood)
During diapering and toileting (stool)

Breaking the chain

How can you contribute to breaking the chain :

- By following Infection prevention policies
- Having an awareness of alert organisms
- Effective hand hygiene
- Cleaning and decontamination
- Using correct personal protective equipment
- Food safety
- Waste management



Why do we need to break the chain ?

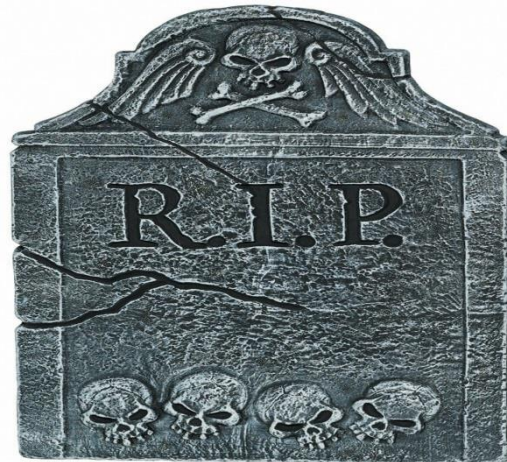
- To reduce the number of healthcare associated infections
- It is a component of the health and social care act 2008
- There are a growing number of resistant (alert) organisms
- Antimicrobial resistance is one of the three greatest threats to human health (WHO 2009) alongside global warming and malnutrition





Pre-antibiotics

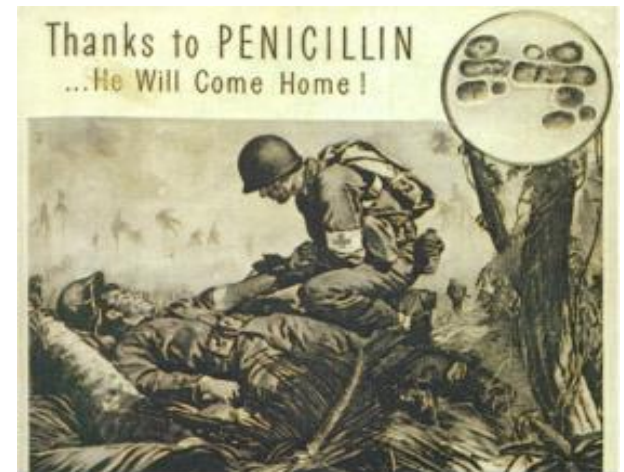
- High mortality rates from skin, soft tissue infections and pneumonias.
- High infant mortality rates
- High post operative infection & mortality rates



The Golden Era

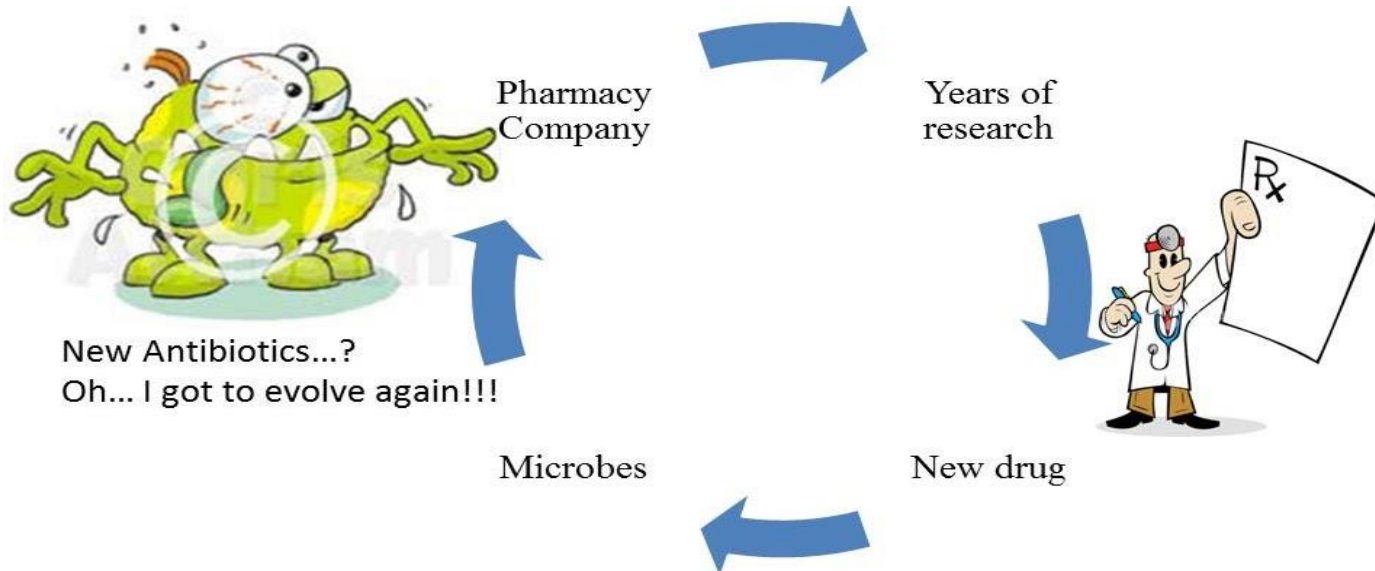
Penicillin – accidentally discovered in 1928, refined and introduced in 1940's when the U.S. managed to produce enough to aid allied forces during D-Day landings during WW2

Sulfonamides – Trimethoprim from 1930's used during WW2, current high resistance.



Antimicrobial resistance

- ❖ A constant race
- ❖ The bugs are always ahead
- ❖ Resistance mechanisms evolve faster than we can find new drugs

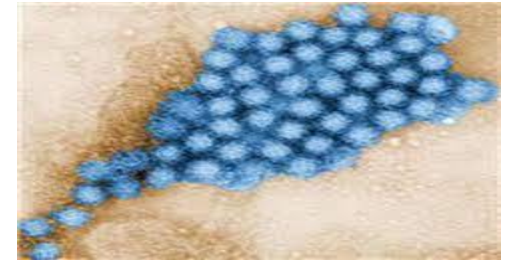


Alert Organisms



- ❖ **MRSA** – a resistant form of the common bacterium *Staphylococcus Aureus*
- ❖ **ESBL** – an enzyme producing bacteria which breaks down 3rd generation antibiotics (co-amoxiclav). Associated with *E.Coli* and *Klebsiella*
- ❖ **CPE** – an enterobacteria which usually lives harmlessly in the gut which produces an enzyme Carbapenemase which disables the group of antibiotics considered the last resort, becomes a problem if it gets into the bloodstream or urine.

Alert organisms



- ❖ **Group A Strep** - contact transmission, causes strep throat, skin infections and necrotising fasciitis
- ❖ **C.D.I. (C.Diff)** – a spore which is transmitted via contact and ingestion, one of the most common bacterial causes of diarrhoea
- ❖ **Norovirus** – commonly known as winter vomiting bug, transmitted via contact, ingestion and aerosol- highly infectious rapid onset.

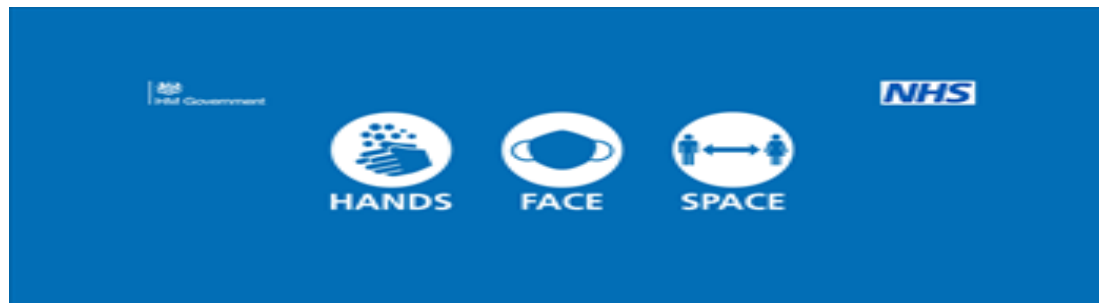
NOROVIRUS:
YOU DON'T WANT IT.




Alert organisms 2020!



- ❖ *Coronavirus is a type of virus. As a group, coronaviruses are common across the world*
- ❖ *Covid 19- international outbreak of a respiratory infection caused by a novel coronavirus, official name COVID-2019*



A woman wearing a white headscarf and a dark blue dress with a white apron is holding a lantern. She is looking towards the camera with a neutral expression. The background is dark and slightly blurred.

For the sick it is
important to have
the Best

So IPC
champions go
fourth and
shine