



Infection Prevention and Control - Article No 3

Date 23rd March 2020

Aim:

1. The Body's Defence system
2. Liquid Hand Soap
3. Herbal advice: Isabel Fanning

As we move into the 3rd article on Infection Prevention and Control, I do hope you are all coping with the situation we all find ourselves. Not even the most esteem epidemiologists have all the answers to the present Covid-19 virus. We don't have the answers to this virus but we do have the knowledge on good practice in "Infection Prevention and Control" On the request of members I have changed today's article to "The Body's Defence systems", The immune system will be covered later. If you have any questions can you send into the FICTA sec. fictasecretary@gmail.com or myself Frances Daly Chair of FICTA, fictachair@gmail.com

A. Body's Defence System

- The defence systems of the body include **the skin, body organs, and secretion in the body.**
- Pathogens can be stopped from entering the body when **the skin is intact.**
- **The mucous membrane** can stop microbes with special chemical. Cilia and normal flora also help in this process

B. Mechanical Barriers

- The **gag reflex** or cough reflex also known as the pharyngeal **reflex** or laryngeal spasm, is a contraction at the back of the throat triggered by an object touching the roof of your mouth, the back of your tongue and throat, the area around your tonsils.
- The **movement of muscles in the intestinal** tract known as peristaltic movement prevents pathogens and or foreign bodies from gaining a hold in the areas. They move it on in a continuous fashion.

C. Chemical barriers.

Chemical secretion that help prevent infections in body systems include saliva, perspiration, gastrointestinal, and vaginal secretions, aim to neutralise or inhibit microbial growth in the specific areas, thus offering a great defence to the body.

- Hydrochloric acid in the stomach
- pH in the stomach, skin fats and vaginal pH
- Antibiotic therapy

Once there is a break in the skin microbes can enter the body and an inflammatory response comes into action immediately. This response brings the phagocytic cells -neutrophils and monocytes to the inflamed area to destroy the microorganism. Other immune responses are activated to neutralise the pathogen if required.

The five pillars of **Infection Prevention and Control when an infection occurs.**

- 1 Isolation of patient, use of personal protective equipment.
- 2 Hand Hygiene.
- 3 Antibiotic Therapy where applicable for bacteria and fungi and to prevent secondary infection in a virus or other infections
- 4 Decontamination of equipment and aseptic techniques
- 5 Environmental issues to include cleaning and waste disposable of contaminated.

D. Personal Protective Equipment PPE

- I **Disposable gloves readily available.** - Reduces the risk of picking up the microorganism and passing the germ to other clients, patients or staff. This aims to prevent cross infection.

Important information on gloves:

- Disposable gloves must never be washed for reuse.
- Gloves must be changed between patients or clients.
- Gloves must not be used as a substitute for **Hand Hygiene routines**.
- Hands must be thoroughly cleaned before putting on gloves and when you take the gloves off cleanse hands again.

2 Disposable Aprons

These are a single use item and must be removed once you leave the room of the contaminated person.

3. Face protection.

This includes Eye wear and a Masks. Special face masks are required for severe respiratory infections for example TB Pulmonary Tuberculosis SARS or a pandemic such as Covid-19.

There is a specific procedure for removing PPE's equipment and this can be reviewed in the clinic procedures and QA document.

Definitions:

Antiseptic: An antiseptic is a substance that stops or slows down the growth of microorganisms.

A disinfectant is a chemical that destroys vegetative forms of harmful microorganisms such as bacteria and fungi but may be less effective in destroying spores.

Carrier: a person who harbours a microorganism but does not display any clinical signs.

Contact: An exposed individual.

Cross-infection; An infection transmitted from one person to another.

Health Care Professional: Refers to all health care professionals who have clinical contact with clients/ patients

Pathogen: A microorganism capable of producing a disease in a susceptible host.

Source isolation: The physical separation of an infected or colonized host from the remainder of the at-risk population.

Sterile: Free from all living microorganisms and spores

Transmission: The method by which any potential infecting agent is spread to another host.

2 **Liquid Hand Soap recipe**

½ Cup of Liquid Castile Soap

½ Cup of distilled water.

1 tablespoon of sweet almond oil

1 Teaspoon of Vitamin E (Optional)

15 Drops of Tea Tree Essential oil) *Melaleuca alternifolia*

10 Drops of Lavender Essential oil *Lavandula angustifolia*

Method

1. Add water first to the dispenser first and then add the castile soap followed by the Essentials oils and Sweet almond oil.
2. Shake the dispenser very well before use.
3. You can add 1 teaspoon of Vitamin E to help moisture the skin.