

## Infection Prevention and Control – Instructor Lesson Plan

- To understand the importance of infection Prevention and control when treating wounds. Learn the effects harmful microbes can have on the body and how to avoid their transmission.

Age range: Secondary School (12-16) years

Number: Up to 35

Duration: Up to 1 hour

### **Equipment**

A/V aids for viewing of youtube videos

UV hand screening tool and UV gel

Worksheet

### **Learning intentions**

By the end of the session learners will be able to:

- Identify the risks from microbes to those with wounds
- Identify the reasons why hand-washing is an effective intervention for preventing hospital-acquired infection.
- Identify when to wash hands/use alcohol gel
- Identify techniques for washing hands/using alcohol gel

Task 1 – What are the four different main types of pathogen?

Ask learners what different microbes they know about

Bacteria

Viruses

Fungi

Parasites

Task 2 – Ask Learners to identify two useful and two negative effects of microbes

#### *Useful*

- Microbes (bacteria) will grow in milk to make it 'go off'. This is used in the **yoghurt** making process. **Cheese** is also another product made due to the use of microbes in industry.

- Yeast is a microbe which respire to give off carbon dioxide. This is used in baking bread and in beer making.

#### *Negative*

- Microbes can cause a whole host of different infections, from as mild as the common cold, to as deadly as Ebola
- Microbes can be responsible for the decay of food, making it spoil more quickly if not treated or stored in appropriate conditions

Task 3 – Ask learners to rank which they think is the most dangerous to life in the England

*Healthcare Acquired Infections*

*Road Traffic Accidents*

*Air Travel*

*Results show that HCAI are more deadly than both RTA's and Air Travel.*

Task 4 Ask learners to group into pairs, ask one partner to cover their hands in UV gel and then shake hands with their partner. Ask them to examine their findings after the activity under the UV lightbox. Fill in the hand pattern of spread on the workbook.

Task 4. – Ask the students to carry out the UV gel task.

What were their findings?

What implications do they think this has for the spread of microbes?

Task 5 – Ask the students to rank their handwashing technique. Why do they think this is important?

Task 6 – Ask the students to watch the following youtube video and identify how this handwashing technique differs from their own, what areas did they miss?

<https://youtu.be/3PmVJQUCm4E>



## **Infection Prevention & Control Workbook**

Date:

Your name:

Instructors name:

### **Introduction**

Welcome to this short session about infection prevention and control. You will be working in pairs to identify what risks there are to patients with wounds and to find out how effective your handwashing technique is.

Today we aim to explore what microbes are; how they can be harmful and also how to prevent their spread. By the end of this session you should be able to:

- Identify the different types of microbe
- Explain why some microbes can be useful
- Explain why some microbes can be harmful
- Demonstrate good hand hygiene

Task 1 – What are the four main different types of microbe relevant to humans?

Task 2 – Name two useful and two negative effects of microbes to humans

Useful effects

- 1.
- 2.

Negative effects

- 1.
- 2.

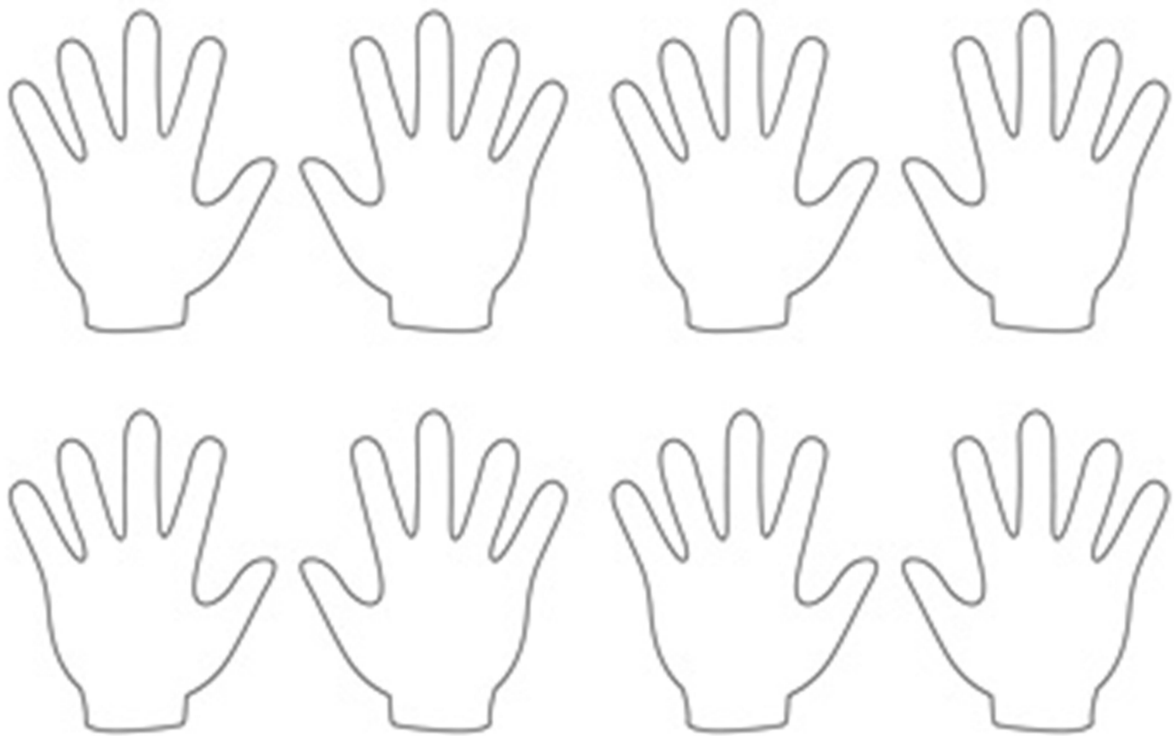
Task 3 – What do you think is more likely to cause death in England.

Healthcare Acquired Infections, Road traffic Accidents, Air Travel

Rank them in order

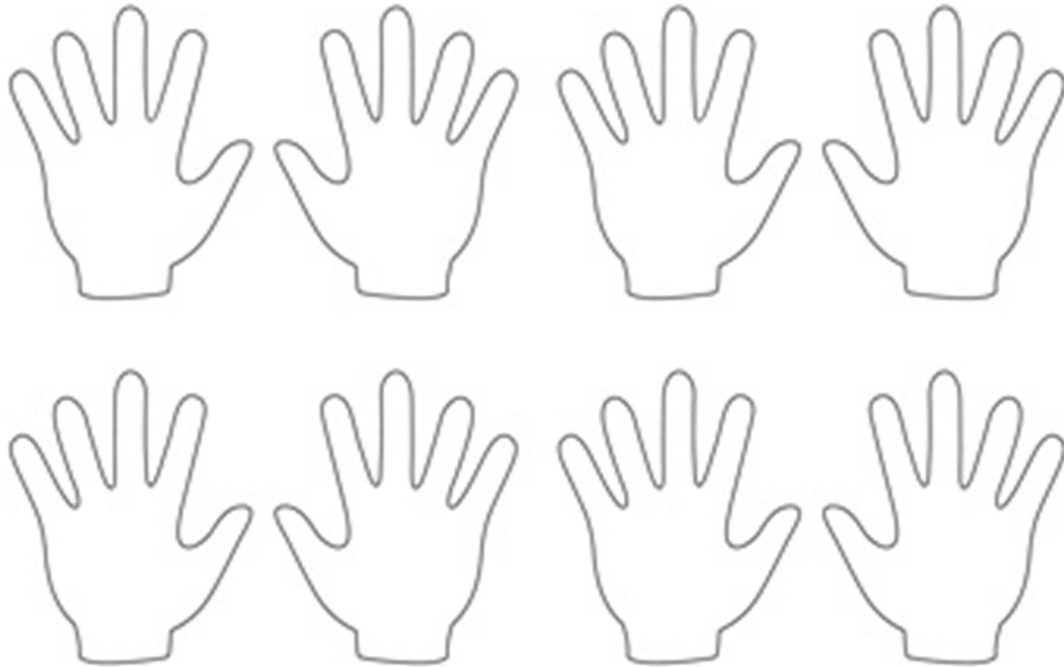
- 1.
- 2.
- 3.

Task 4. – In pairs, one partner cover your hands in UV gel, now shake hands with your partner. Look at both pairs of hands under the UV lightbox and draw your findings below, after washing your hands!



*Mark the hands front and back and who was the partner who started with the gel and who was the partner?*

Task 5 – How effective was your handwashing technique? Draw the UV pattern remaining after your hands were washed – where did you miss?



Task 6 Watch this you tube video on how to clean your hands effectively, afterwards note how this differed from your hand washing technique.

<https://youtu.be/3PmVJQUCm4E>

How was the different to how you wash your hands every day?