

## Standing Operating Procedure (SOP) for Use of Fans in the Clinical Environment

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| <b>Title</b>                        | <b>Use of Fans in the Clinical Environment</b>      |                                  |
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| 1                                   | February 2019                                       | New Standard Operating Procedure |
| 2                                   |   |                                  |
| 3                                   |   |                                  |
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### Purpose

This SOP aims to assist with the risk assessment for the choice of fan to be used and the cleaning and disinfection of the fan when use has been discontinued. This SOP will include fans for use for patient comfort and for cooling of areas when the temperature outside increases, and in the event of a heat wave.

### Introduction

Portable fans used in clinical areas have been linked to cross infection in health and social care facilities. Each use and reuse should be clinically risk assessed.

Bladeless portable fans have been linked to healthcare associated infection. Dust and debris can naturally accumulate within the internal body of bladeless fans and this provides a reservoir for micro-organisms.

There is currently no evidence that conventional bladed fans disperse micro-organisms in the same way. However, the electric motors in these fans are air cooled and, similar to bladeless fans, dust and debris can accumulate within the motor housing. Dust and debris can also accumulate on the blades. A similar reservoir of micro-organisms may therefore be created and entrained in the airflow. As a precautionary measure they may be considered equally implicated.

## Scope

This SOP will apply to all clinical areas and clinics where fans are used.

All portable fans are within scope of this alert.

## Responsibilities

Infection Prevention and Control is everyone's responsibility

## Risk Assessment

All portable fans used in clinical areas should be clinically risk assessed for each use and reuse.

The risk assessment should address the following:

- Portable fans are not recommended for use during outbreaks of infection or when a patient is known or suspected to have an infectious agent e.g. *Clostridium difficile*, MRSA, Norovirus. This will include the use of fans on the nurses' station and in communal areas
- Alternative methods of cooling have been considered.
- The use of the fan is considered to be of benefit to the patient/patient's clinical condition and/or comfort.

Portable fans should **NOT** be used in

- High risk areas including Operating Rooms
- In areas where there are immune-compromised patients
- Areas where sterile supplies are stored
- Areas where the reprocessing of medical devices takes place e.g. endoscope reprocessing, dental instrument reprocessing etc.
- Please contact the IPC Team on (01743) 277671 during office hours for advice or out of hours please contact the on call consultant Microbiologist via SaTH switchboard on (01743) 261000

If a portable fan is to be used then:-

- The fan should be positioned so the air flow is directed at the patient.
- The fan should be positioned at patient's bed level or higher.
- The flow of air is positioned so as not to flow directly at the door or entrance to the room or across environmental surfaces. Ideally the flow should be directly upwards toward the ceiling avoiding aim directly at smoke detector systems.

- Ensure the flow of air does not blow directly into a patient's face or on to open wounds.
- In non-patient areas including nursing stations ensure the airflow is directed within the area.

Fans must be turned off before the following activities take place:

- Any sterile or aseptic procedure e.g. cannulation, catheterisation, dressing changes.
- Any procedure that may result in splashes of bodily fluids.

### **Cleaning and Decontamination**

Consideration should be given to whether the fan can be adequately decontaminated for safe reuse or whether it should be disposed of after use.

Any portable fans determined by a risk assessment to present an infection risk should be removed from clinical use.

All portable fans used in health and social care facilities:

- should be removed from the clinical area immediately and decontaminated as per the SCHAT Cleaning and Disinfection Policy after each patient use.
- Bladeless fans contain filters which must be cleaned and replaced as per manufactures instructions.
- Fans should be included in planned preventative maintenance and Portable Appliance Testing.
- Hand hygiene should be performed before and after handling a fan to prevent contamination.

### **Procurement**

All fans purchased for SCHAT areas should be purchased via procurement and include manufacturers' information and advice on how to maintain and decontaminate the fan.

Assurance and evidence must be provided by the manufacturer that internal contamination will not be dispersed into the clinical/care area.

### **Monitoring**

Fan use should be recorded in the patient's notes and on IPC Isolation audits.

Procurement will provide data on fans purchased.

## References

Alsaffar, L, Osbourne, L. and Bourne, N.T. (2018). Bacterial Colonisation of Bladeless Electrical Fans. *Journal of Hospital Infection* 2018.

Estates and Facilities Alert. (2019). *Portable fans in health and social care facilities: risk of cross infection*. Reference: EFA/2019/00. Crown Publication.

Health Protection Scotland. (2018). SBAR: *Portable cooling fans for use in clinical areas*.

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Health and Safety Executive. (2018) *Guidelines for the Use of Portable Electric Fans in Healthcare Settings*. Republic of Ireland Health Service Executive