Humber Teaching
NHS Foundation Trust

STANDARD OPERATING PROCEDURE FOR THE USE OF PORTABLE FANS IN THE CLINICAL ENVIRONMENT

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Author/Lead **Job Title**	Debbie Davies Infection Prevention and Control - Lead Nurse
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Consultation:	Matrons
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Name of Trust Strategy/Policy/Guidelines this SOP refers to:	Standard Infection Control Precautions (SICPS) (SOP23-006) Environmental Cleanliness (SOP24-042)

VALIDITY – All local SOPS should be accessed via the Trust intranet

CHANGE RECORD

Version	Date	Change details
1.0	*21 August 2024*	*New SOP. Approved at HAIG (21 August 2024).*

Contents

1. INTRODUCTION

Seasonal hot weather can impact health and patient and staff comfort, where properly functioning central air conditioning is unavailable.

These areas may need to use alternatives such as portable fans to improve patient and staff comfort and reduce health risks associated with excessive heat. Healthcare workers (HCW) however need to be aware of the potential risk of transmission of healthcare associated infection (HCAI) related to the use of fans due to the risk of dispersal of microorganisms. NHS England (NHSE) produced a report that implicated the use of bladeless fans as a contributary factor in an outbreak of healthcare associated infection. An investigation found the internal mechanism of the fans were contaminated with the causative organism of the outbreak (Medicines and Healthcare Regulatory Agency Alert 2019). This Standard Operating Procedure (SOP) provides recommendations for the safe use of portable fans.

2. SCOPE

This SOP applies to all healthcare workers employed by Humber Teaching NHS Foundation Trust (including contractors, agency/locum staff, students and visiting/honorary consultants/clinicians) who have direct or indirect contact with patients and their environment.

3. DUTIES AND RESPONSIBILITIES

The Chief Executive
The Chief Executive will ensure that there are effective and adequately resourced arrangements for infection prevention and control within the organisation.

Director of Infection Prevention and Control (DIPC)
The Director of Infection Prevention and Control (DIPC) has delegated responsibility for ensuring the implementation of this SOP and monitoring the impact. As an Executive member of the Trust Board any serious concerns or incidents will be escalated directly to the Chief Executive and the Trust Board.

Divisional Leads
Divisional Leads have responsibility to ensure that all staff within the division are aware of this SOP and understand their individual responsibility to always follow it. They are responsible for monitoring the implementation of this SOP and for ensuring action is taken when staff fail to comply. They are also responsible for ensuring that the facilities and equipment required are provided to facilitate effective and safe practice.

Modern Matrons
Matrons are responsible for leading and driving a culture of adherence to effective IPC in their respective clinical areas and for monitoring, recording, and reporting compliance with standards.

The Infection Prevention and Control Team
The Infection Prevention and Control Team (IPCT) is responsible for providing expert advice in accordance with this SOP and for supporting staff in its implementation. They are responsible for ensuring this SOP remains consistent with the contents of the National Infection Prevention and Control Manual (NIPCM) for England.

Ward / Team Managers / Clinical Leads
It is the responsibility of Ward / Team Managers / Clinical Leads to ensure that this SOP is implemented in their area and for ensuring all staff always adhere to the principles. They are responsible for addressing any issues of non-compliance within their clinical areas of responsibility.

They will also ensure that:

- They take a leading role, personally acting as positive role model of effective infection prevention and control practice.
- All clinical staff within their designated area of responsibility are aware of this SOP and work in accordance with the procedures.
- All facilities, equipment and stock are in place and are functional to enable effective IPC practice.
- The Trust approved portable fans are procured and managed in accordance with this SOP.
- A local risk assessment is completed prior to the use of portable fans in their designated area of responsibility.

4. PROCEDURES

Heating, ventilation, and air conditioning systems in the building should be adjusted to achieve a comfortable temperature, to avoid the use of alternative cooling, such as fans wherever available.

Alternative cooling methods should also be considered:

- Adequate hydration.
- Blocking out direct sunlight with window blinds / reflective film.
- Increasing air flow - opening windows where possible if outside temperature is within acceptable limits.

Due to the potential risks associated with fans they should only be used as a temporary short-term measure and not on a year round basis, unless there is an exceptional circumstance approved by the IPCT.

4.1. General health and safety considerations prior to fan use

- A risk assessment to be completed prior to any use within the environment to confirm that the potential benefits from using portable fans outweigh the potential for increasing the transmission risk of infectious agents. This must be held in the departments Health and Safety Management folder. In the clinical environment Appendix A must be completed for each patient which requires the use of a fan.
- All portable fans must meet healthcare specific electrical services supply and distribution standard requirements Health Technical Memorandum (HTM) 06-01.
- Maintenance regimes must be agreed with Estates (fans are portable and are therefore subject to Portable Appliance Testing (PAT) this should be agreed and undertaken by Estates or an appointed contractor).
- Manufacturer's guidance must be always adhered to.
- No bladeless type of portable fans or tower fans must be used within a clinical environment unless agreed with the IPCT.
- If a patient has purchased their own portable fan a risk assessment is required. Once completed this to be discussed with the IPCT.
- Infection control guidance and advice must be utilised or sought where there is any concern regarding the risk in relation to infection.
- Equipment to be subject to local visual checks for any notable defects e.g. breaks or tears in cable, breaks or cracks in casing.
- Any moving parts must be enclosed to prevent risk of entrapment.
- Fans must be positioned so not to introduce a risk of trip (via cable) or topple over.
- Where any equipment is deemed or thought to be faulty this will be removed from use, clearly marked as faulty DO NOT USE and Estates contacted for advice.

4.2. Procurement

- All fans purchased for clinical use should be a Trust approved model purchased via procurement.
- Manufacturer's instructions on maintenance and decontamination must be followed.

4.3. General IPC recommendations for the Use of Fans or Portable Air Conditioning Units Within a clinical setting

Portable fans must **NOT** be used:

- In rooms where immunosuppressed patients reside.
- In areas where sterile supplies (including medicines) are stored.
- When caring for an individual who poses a potential ligature risk.
- Within sluice / dirty utility rooms.
- In areas with a suspected or confirmed outbreak of any infectious agent.
- When a patient is suspected or has a confirmed communicable infection. In special circumstances please contact the IPCT if further advice / individual risk assessment is required for the management of patients with alert organisms.
- During sterile and aseptic procedures e.g., wound care, dressing change, intravenous cannulation, urinary catheter insertion. Fans should be turned off one hour prior to any sterile or aseptic procedure.
- During any medical procedures where particle spread can occur e.g., aerosol generating procedures (AGPs).
- In other areas / rooms with specifically designed airflow requirements or equipment that are sensitive to changes in airflow e.g., biological safety cabinets/ pharmacy.

4.4. The positioning of fans in a clinical setting

- Position the fan so airflow is directed towards the patient at bed level or higher toward the ceiling indirectly towards the patient, avoiding smoke detectors.
- Position the fan on a clean surface. Ensure airflow is not directed towards the door of the room or across environmental surfaces.
- Ensure airflow is not blowing directly on burned skin, burn dressings, open wounds or directly into the patient's face.
- Direct airflow within the area so it is not at face level of HCWs e.g., in nursing stations / offices to avoid directing exhaled air from one HCW to other HCW.
- Avoid using fans in areas that do not have fresh air introduced.
- Do not use the oscillating function (this is to ensure that the direction of airflow is limited to the area where it is needed).
- Set the portable fan to the lowest speed that achieves the intended effect.
- Consider positioning the fan in front of an open window or the air supply to promote clean air being blown towards a person.
- If placed near a window, consider outside conditions e.g., construction, renovation, smoke that could potentially introduce contaminated air or dust particles and avoid directing this airflow into the area.
- If used in a multi-bed area, close the privacy curtains to ensure that the airflow is directed towards a specific patient space and does not flow to other patient spaces. A fan is required for each patient.

4.5. Cleaning of the Portable fans

Environmental contamination may increase with the use of fans, so it is important that clinical areas are clutter free, with good environmental and equipment cleaning compliance and records. Fans should never show any visible dirt or dust.

- Hand hygiene must be performed before and after cleaning.
- Roles and responsibilities for cleaning and disinfection must be clearly outlined and documented.
- Manufacturer's instructions should be followed related to cleaning and decontamination, including the outer grill casing (nursing staff/clinical staff – as per cleaning schedules), inner blades (estates / general assistant if needs dismantling to do so).
- Assign who is responsible for cleaning and frequency. This should be by the local team using the fan.
- All fans should be decontaminated after individual patient use.

- The fan should be cleaned whenever it is moved between different areas of a clinical setting e.g. between rooms and between patients if in a side room.
- The cleaning of fans should be performed once daily and always between patients' use and at least every 7 days if not in use.

4.6. Storage of fans

- When not in use, portable fans should be cleaned, disinfected, and stored in a clean designated storage area.
- Cover fans during storage where possible and store in a manner to protect them from dust and moisture.
- Clean and disinfect portable fans after removing them from storage and before use.

5. REFERENCES

Alsaffar, L., Osbourne L., Bourne NT. (2018) Bacterial Colonisation of Bladeless Electrical Fans. Journal of Hospital Infection.

Department of Health (2017) Health Technical Memorandum 06-01: Electrical services supply and distribution

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

Health and Safety Executive Overview - Ventilation in the workplace (hse.gov.uk)

NHS England (2022) National infection prevention and control manual for England

Appendix A: Risk Assessment for the use of Portable Bladed Electrical fans for the Use in Clinical Areas

Assessor Name:
Clinical Area:
Date of Assessment:

Have all other methods of cooling been attempted with no success? Yes / No

e.g., windows opened, blinds closed, regular hydration, clothing adjustments within permitted dress code, regular breaks?

If **NO**, a fan should not be used
If **YES**, please continue to complete the risk assessment

Patient assessment	**Yes**	**No**
Is it possible to lower the patient's temperature by other means? e.g., remove a layer of clothing, cool drinks etc.		
Is the patient being cared for using airborne precautions? e.g., does the patient have suspected or confirmed TB, Measles, Chicken Pox etc?		
Is the patient being cared for using droplet or contact precautions? e.g., does the patient have suspected or confirmed *Clostridioides difficile,* MRSA, Norovirus, COVID-19, Influenza etc?		
Is the patient deemed to be severely immunocompromised due to disease or treatment or being nursed in protective isolation?		
Has the Infection Prevention and Control Team advised a fan **must not** be used for this patient or within this room?		
Has a separate risk assessment been completed and deemed it clinically unsafe for the patient to have a fan in their room/at the bedside?		
Please note the fan MUST be switched off 1 hour prior to and when undertaking aseptic procedures		

If you have answered **YES** to any of the above questions a fan should **NOT** be used

Environmental assessment	**Yes**	**No**
Is it possible to lower the temperature of the room by any other means e.g., opening windows and doors, reducing heating levels?		
Is air conditioning available in the room?		
Are there any severely immunocompromised patients within the area?		
Are any sterile supplies stored within this area?		
Is any food prepared in this area?		

If you have answered **YES** to any of the questions above a fan should **NOT** be used.

Appendix B: Equality Impact Assessment

For strategies, policies, procedures, processes, guidelines, protocols, tenders, services

1. Document or Process or Service Name: Standard Operating Procedure for the use of portable fans in the clinical environment.
2. EIA Reviewer (name, job title, base and contact details): Debbie Davies, IPC Lead Nurse. Mary Seacole Building, Willerby Hill, Beverley Road, Willerby, East Riding of Yorkshire, HU10 6ED.
3. Is it a Policy, Strategy, Procedure, Process, Tender, Service or Other? SOP

Main Aims of the Document, Process or Service
This SOP is aimed to provide guidance for the safe management and use of portable fans including the use of portable air conditioning units within Trust settings.
Please indicate in the table that follows whether the document or process has the potential to impact adversely, intentionally or unwittingly on the equality target groups contained in the pro forma

Equality Target Group	Is the document or process likely to have a potential or actual differential impact with regards to the equality target groups listed?	How have you arrived at the equality impact score?
1. Age 2. Disability 3. Sex 4. Marriage/Civil Partnership 5. Pregnancy/Maternity 6. Race 7. Religion/Belief 8. Sexual Orientation 9. Gender re-assignment	Equality Impact Score Low = Little or No evidence or concern (Green) Medium = some evidence or concern(Amber) High = significant evidence or concern (Red)	a) who have you consulted with b) what have they said c) what information or data have you used d) where are the gaps in your analysis e) how will your document/process or service promote equality and diversity good practice

Equality Target Group	Definitions	Equality Impact Score	Evidence to support Equality Impact Score
Age	Including specific ages and age groups: Older people Young people Children Early years	Low	No adverse impact identified.
Disability	Where the impairment has a substantial and long term adverse effect on the ability of the person to carry out their day to day activities: Sensory Physical Learning Mental health (including cancer, HIV, multiple sclerosis)	Low	No adverse impact identified.
Sex	Men/Male Women/Female	Low	No adverse impact identified.
Marriage/Civil Partnership		Low	No adverse impact identified.
Pregnancy/ Maternity		Low	No adverse impact identified.
Race	Colour Nationality Ethnic/national origins	Low	For any patient whose first language is not English, for information to be provided and understood, staff will follow the Trust interpretation policy.
Religion or Belief	All religions Including lack of religion or belief and where belief includes any religious or philosophical belief	Low	No adverse impact identified.
Sexual Orientation	Lesbian Gay men Bisexual	Low	No adverse impact identified

Equality Target Group	Definitions	Equality Impact Score	Evidence to support Equality Impact Score
Gender Reassignment	Where people are proposing to undergo, or have undergone a process (or part of a process) for the purpose of reassigning the person's sex by changing physiological or other attribute of sex	Low	No adverse impact identified

Summary

Please describe the main points/actions arising from your assessment that supports your decision. None of the equality strands have been identified in the initial impact assessment. The practices / actions recommended in this SOP are based upon the safe use of appliances and minimising associated healthcare infection risk whilst achieving patient and staff comfort when necessary due to excessive heat conditions.
EIA Reviewer: Debbie Davies

Date completed: 13/08/24	Signature: D.Davies