Trust Guideline for the Management of Scabies

Document Control:

For Use In:	All areas within the Norfolk and Norwich University Hospitals NHS Foundation Trust (NNUH)		
	All Clinical Areas		
Search Keywords	Scabies, Crusted Scabies, Crusted, Norwegian scabies, Scabies crustosa		
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Version History:

Version	Date	Author	Reason/Change
4.1	18/10/2018	Action with Scabies flow chart updated with "Contact dermatology if uncertain about diagnosis"	IP&C and Microbiology
5	17/10/2022	Full policy review. Updated in line with NICE and BASHH	IP&C and Microbiology

Previous Titles for this Document:

Previous Title/Amalgamated Titles	Date Revised
None	Not applicable

Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet.

Consultation

The following were consulted during the development of this document:

Matrons and Senior Nurses	HICC Members
Ward Sisters and Charge Nurses	Consultant Microbiologists/Virologists
Health and Safety	Infection Prevention & Control (IP&C team)
Workplace Health and Wellbeing	IP&C Link Nurses
Dermatology Consultants	Pharmacy

Monitoring and Review of Procedural Document

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g. changes in legislation, findings from incidents or document expiry.

Relationship of this document to other procedural documents

This document is a clinical guideline applicable to the Norfolk and Norwich University Hospitals NHS Foundation Trust (NNUH); please refer to local Trust's procedural documents for further guidance, as noted in Section 5.

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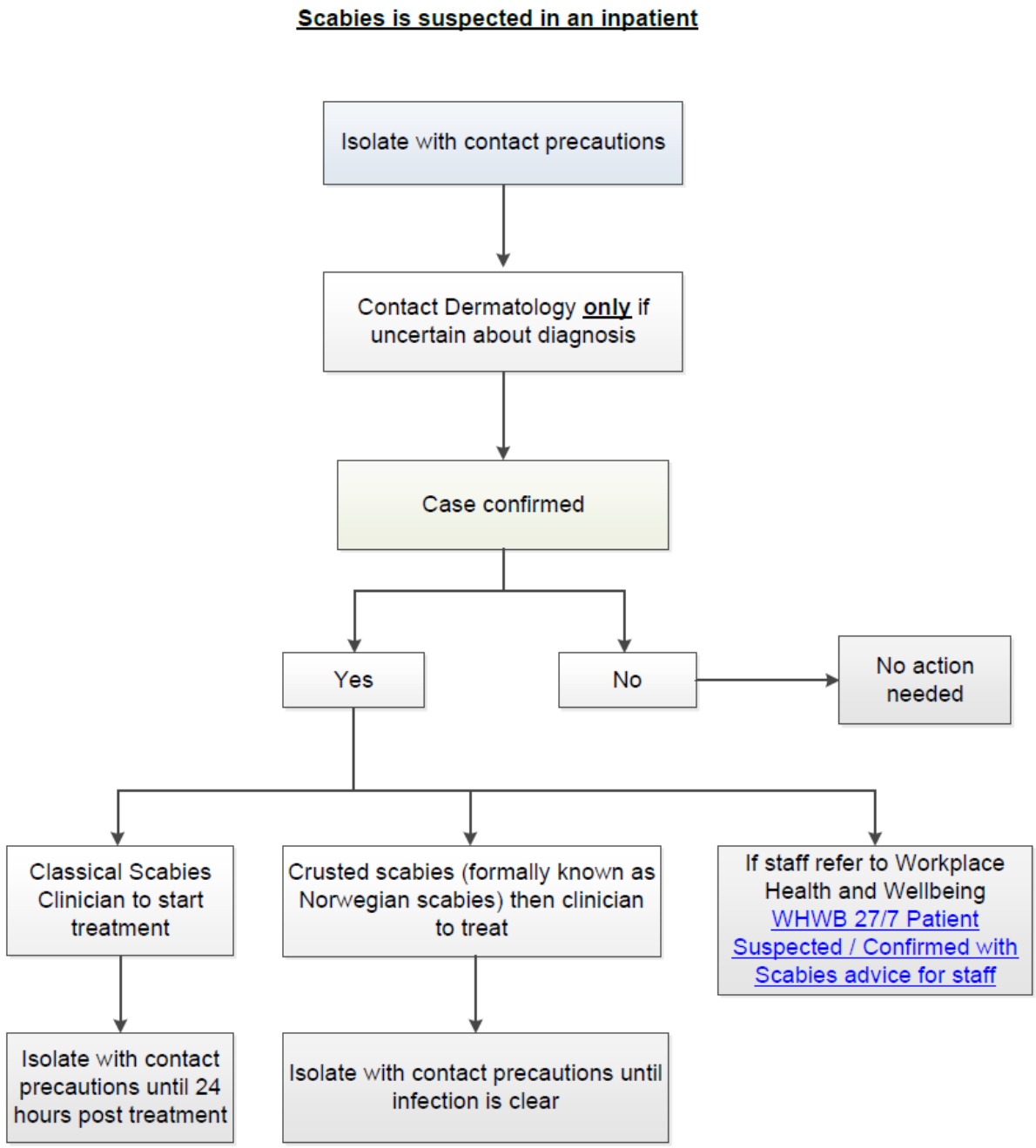
Quick reference



1. Introduction

1.1. Rationale

Scabies is a common public health problem with the estimated global prevalence of more than 200 million affected individuals (British association for sexual health and HIV, 2016, NICE Clinical Knowledge Summary, Scabies, updated 2022).

Risk factors include:

- Close contact with an infested person.
- High levels of poverty and social deprivation.
- Crowded living conditions and institutionalization.
- Winter months, probably due to increased crowding and prolonged survival of mites away from the host in cooler temperatures.

Crusted scabies is primarily seen in:

- People with a history of immunosuppression (such as those with HIV or lymphoma, or on long-term corticosteroid treatment).
- People with a reduced ability to scratch (for example due to physical incapacity or because the itch is not perceived because of skin anaesthesia).
- People with learning difficulties or neurological disorders (such as Down's syndrome or dementia).
- Elderly people.

In some cases, there may be no identifiable risk factor, and this suggests genetic susceptibility (British association for sexual health and HIV, 2016).

Species of the scabies parasite are host specific; transmission between humans and other animals can occur, but usually only results in short-lived infestation which does not require treatment (British association for sexual health and HIV, 2016, NICE Clinical Knowledge Summary, Scabies, updated 2022).

This guideline deviates from NICE guidance which refers to seeking specialist advice from a Paediatric Dermatologist. The NHS England National lead with the British Society for Paediatric Dermatology has advised that due to the coverage of Paediatric Dermatologists in England, this needs to be interpreted locally.

1.2. Objective

The objective of the clinical guideline is to ensure that patients infested with scabies are recognised promptly and receive effective and appropriate care; and to minimise the risk of transmission of scabies.

1.3. Scope

For the prevention of nosocomial transmission of Scabies and appropriate management of all patients with suspected or confirmed Scabies.

1.4. Glossary

The following terms and abbreviations have been used within this document:

Term	Definition
Classical scabies	a contagious skin infestation caused by the mite *Sarcoptes scabiei var hominis* (British association for sexual health and HIV, 2016, NHS, Health, A-Z, Scabies, 2020, NICE Clinical Knowledge Summary, Scabies, updated 2022)
Crusted scabies (formally known as Norwegian scabies)	a rarer, severe form of scabies, also caused by *Sarcoptes scabiei var hominis,* found in higher numbers on the skin compared to classical scabies, hence is more contagious and is usually associated with immunosuppression (British association for sexual health and HIV, 2016, NHS, Health, A-Z, Scabies, 2020, NICE Clinical Knowledge Summary, Scabies, updated 2022)
Close contact	Transmission occurs via direct and prolonged skin to skin contact e.g., 20 minutes or more with a person infested with scabies. It can also be sexually transmitted hence careful history taking is important. In crusted scabies, brief contact (less than 20 minutes) may be sufficient to cause infestation as the mites are more numerous. Fomite transmission e.g.: towels, clothing, bedding etc. can occur and is more common with crusted rather than classical (British association for sexual health and HIV, 2016, NHS, Health, A-Z, Scabies, 2020, NICE Clinical Knowledge Summary, Scabies, updated 2022)
DIPC	Director of Infection Prevention and Control
IP&C	Infection Prevention and Control
NICE	National Institute for Health and Care Excellence
UKHSA	UK Health Security Agency (previously Public Health England)
WHWB	Workplace Health and Wellbeing

2. Responsibilities

List each key stakeholder using the job title with information as to their role and responsibilities in relation to this procedural document.

Chief Executive has overall responsibility for ensuring there are effective procedures and resources are in place to enable the implementation of this policy.

DIPC is responsible for the development and implementation of strategies and policies on IP&C.

IP&C Team

- Provide specialist advice and support with regards to isolation, practices, and decontamination in management of patients with scabies.
- Assist in developing and monitoring this policy.
- Provide appropriate IP&C training to trust staff.
- Ensure mandatory reporting is maintained.
- Undertake continuous local surveillance of cases of scabies.

Consultants and their junior doctors

- Responsible for judicious and appropriate use of antibiotics in line with local and national guidelines.
- Reviewing patients with suspected/ confirmed scabies.
- Commence appropriate treatment for Scabies in a timely manner.

Ward and departmental managers/Matron

- Ensure all staff in areas of responsibility are aware of and comply with this guideline.
- To ensure that staff are up to date with mandatory IP&C training.
- Assist in monitoring this guideline.
- Ensure daily review of patients continuing need for isolation to free up single rooms that are no longer required for isolation purposes and update ward view room boarders.

Estates are responsible for ongoing maintenance of ventilation systems and general ward environments including isolation facilities.

Domestic Service Provider is responsible for cleaning to ensure all areas are cleaned accordingly to the agreed standard and that their staff follows NNUH IP&C guidelines.

Workplace health and wellbeing (WHWB) to alert DIPC/IP&C team to any infection issue amongst Trust employees that may have an impact on patients. WHWB provide advice to staff with scabies.

Site Operations Team to facilitate isolation of patients with suspected / confirmed infections as soon as possible. In any situations where safe placement cannot be achieved this will be escalated as appropriate to Executive on call and documented on the Situation Report under “IP&C issues”. The operation Centre is also responsible for resolving operational issues in outbreak situations.

All clinical staff as relevant have a responsibility to:

- Understand, implement, and abide by the information provided in this guideline.
- Be aware of the procedural documents which relate to their department/area of practice.

- Ensure they are up to date with mandatory IP&C training.
- Review patients continuing need for isolation daily in order to free up single rooms that are no longer required for isolation purposes.
- Keep the patient informed of their infection status regularly as necessary.
- Look up the results on ICE and action them as per Trust guidelines.
- Thorough cleaning of equipment.

3. Processes to be followed

3.1. Background

Scabies is usually intensely itchy although crusted scabies may not be itchy. The mite measures 0.3-0.5mm and burrows into the epidermis, tunnelling through the stratum corneum. A mite can live off a host for 24-36 hours, but survival can be longer at lower ambient temperature and higher humidity, so consider decontaminating fomites simultaneously when treating patients.

- Life cycle is approximately 4–6 weeks.
- The female lays about 25 eggs and dies.
- Eggs develop into adults in 10–15 days.
- The average number of mites in initial infestation is 10–15, approximately half this number with a subsequent infestation.

3.2. Symptoms and clinical manifestations

The main symptoms of scabies are likely caused by an immune response to the mites, their saliva, eggs, or faeces (type IV hypersensitivity reaction).

The intensely pruritic eruption has a classic distribution pattern (Figure 1). The itch is generally worse at night. Symptoms can begin from 3-6 weeks after infestation or 1-3 days in re-infestation. Patients can be contagious prior to rash development so contact history up to 6 weeks prior to symptoms is essential.

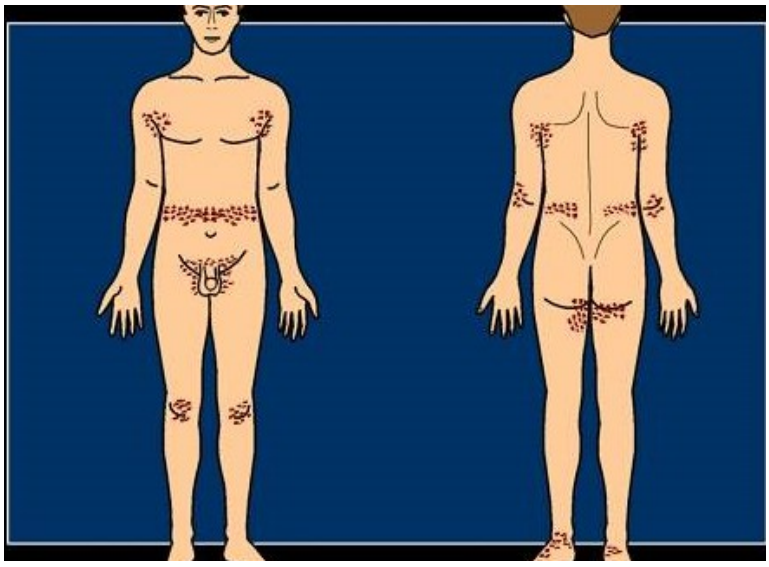


Figure 1: Distribution of scabies papules and nodules. Picture courtesy of Primary Care Dermatology Society UK (PCDS)

The most classical distribution is the interdigital web spaces, sides of fingers and fingernails. Then wrist flexors, elbow extensors and folded areas as depicted above. The back and head are usually spared. Palms and soles can often be affected in the elderly and children.
The pathognomonic lesion is the burrow: a linear intraepithelial mark which appears slightly elevated and “thread like” (Figure 2). Nodules and papules can also be seen and urticaria can rarely occur.

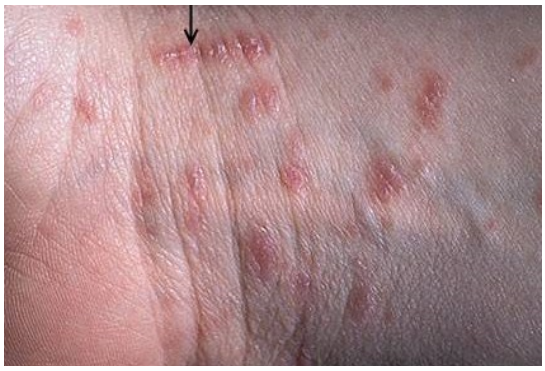


Figure 2: Classical linear burrows with scabies papules seen over the wrist. (PCDS).

If crusted scabies occurs the burrows and rash may be widespread or encompass the whole body. Patients may be less itchy/not itchy due to a reduced immune response (Figure 3). It can be mistaken for other diseases like psoriasis or eczema. Infestation may manifest as: pruritic plaques, patches, faint scale and erythema. Burrows may be seen in unusual sites, but the classic sites as above are also frequently involved. Palms and soles can be affected, and nodules can be seen on the genitals and nipples.

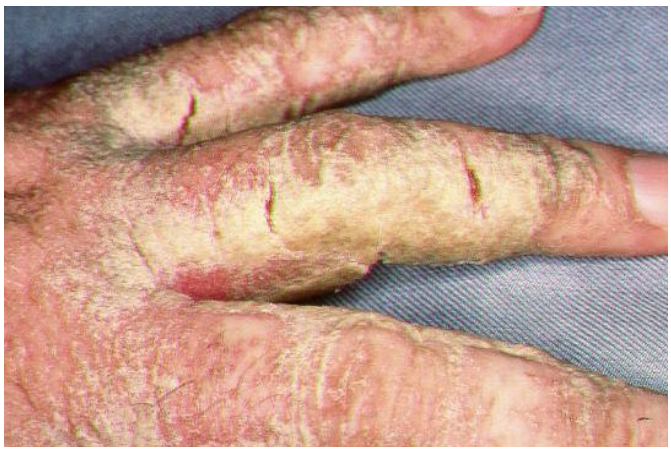


Figure 3: Crusted scabies with more widespread and confluent rash and thicker hyperkeratotic surface with some fissuring seen (PCDS).

Scabies incognito can occur when patients have been treated with topical steroids, this masks the symptoms, but the infestation remains. Widespread papular lesions can occur mimicking eczema.

3.3. Epidemiology

Scabies is endemic in certain populations (such as in sub-tropical and/or developing countries). Elsewhere it can be seen episodically or in epidemics.

In the UK, an epidemic cycle of 15–17 years has previously been noted.

The prevalence of scabies is estimated to be +200 million cases worldwide.
A UK study using data from the Health Information Network (THIN) estimated the overall prevalence of scabies to be 2.81 per 1,000 females and 2.27 per 1,000 males.

3.4. Diagnosis

The diagnosis of scabies is usually clinical, from the history and the distribution i.e.:

- Widespread itching, worse at night, spares the head (except in infants).
- Characteristic lesions of pruritic papules and burrows classically beginning over the fingers and wrists in the above pictured distribution.
- Genital and nipple nodules.
- Other household members with similar symptoms.

The patient should only be referred to or discussed with a dermatologist for confirmation of diagnosis when there is clinical uncertainty, otherwise urgently proceed with isolation and treatment.

There is not always a dermatologist on-call who is on site for the hospital who can see the patient. Dermatology trainees or consultants are on-call for telephone advice at all times, please try the trainee as first point of contact.

Testing can be performed e.g., microscopy but is often not necessary as it is a clinical diagnosis.

3.5. Management

Isolation	- Patients with scabies must be isolated with contact precautions until 24 hours after treatment. Risk of transmission is reduced 24 hours after treatment with an effective scabicide. - Patients with **crusted scabies** must be isolated with contact precautions until infestation is clear.
Personal Protective Equipment (PPE)	Disposable gloves and aprons must be worn for close contact with the patient, and these must be disposed of in clinical waste after use, followed by hand washing with soap.
Linen	Hospital patient bedding, clothing and towels (and those of all potentially infested contacts) should be decontaminated by washing at a high temperature (at least 60°C) and drying in a hot dryer. Please send as “infected linen” which will cover this. For patient’s own laundry that cannot be washed at 60°C) and dried in a hot dryer, seal in a plastic bag where it should remain for at least 72 hours prior to washing as normal.

Hand Hygiene	Hands must be decontaminated with soap and water after PPE is removed. Paying strict attention to hand washing after contact with an individual will reduce the risk of transmission.
House Keeping	Routine daily cleaning of the patients' room/bed space is sufficient.

3.6. Management of scabies

It is important that adherence to the treatment is thorough otherwise reinfestation or treatment failure can occur. Treat on day 1 and then again on day 7 Crusted scabies needs treatment on day 1, 3 and 7. Infested household contacts/ fomites should be simultaneously treated to prevent reinfestation.

Secondary bacterial infection may occur if left untreated or from constant scratching.

If a child under 2 months is a direct contact of a known scabies case, with whom they are going to have ongoing close daily contact (i.e., parent/ daily carer) then they should normally be treated. If they are a family member of an asymptomatic contact or have had limited contact with a proven case with whom they can avoid further contact for 6 weeks, then it is reasonable (as in pregnant women) to not treat but to observe carefully for signs of infection over the next 6 weeks. In cases of uncertainty, it is reasonable to contact the dermatology service for advice during normal working hours.

1) **Permethrin 5%** cream is first line, can be used in children ≥ 2 months and adults, **(check for chrysanthemum allergy- DO NOT use if patient is allergic)**. It has the advantage of being able to be washed off 8 to 12 hours following application (British National Formulary).
2) **Malathion 0.5%** is an effective second line agent, non-irritant and is suitable for treating adults and children. N.B. should not use on infants ≤ 6 months except on medical advice. The liquid must remain on the skin for 12 hours. (Alcoholic lotions are not recommended owing to the possibility of further irritating excoriated skin) (Arbesman, J, 2014, British National Formulary).
3) **Benzyl benzoate 25% in emulsion**. Only use if above have been ineffective or contraindicated.

Pregnancy and Lactation
Both Permethrin and Malathion may be used; women should be advised not to exceed the recommended dose and that they should not be used repeatedly i.e., not back-to-back, or more frequently than day 1 and day 7 (British National Formulary).

Cases of classical scabies can return to school or work 24 hours after the first treatment (NHS, Health, A-Z, Scabies, 2020).

Procedure of application:

- Remove all clothes and jewellery.
- Ensure the patient's skin is clean, dry and cool before application.

- Apply treatment all over the body, including the genitals, scalp and body folds. Leave on: **Permethrin** 8 to 12 hours, **Malathion** 12 hours and **Benzyl benzoate** 24 hours then wash off.

Care must be taken to avoid the mouth where it could be ingested and periocular areas.

Nails should be trimmed, and medication applied to the nails and under the nails. If hands are subsequently washed re-apply treatment to hands.

Remove medication by washing thoroughly with soap and water between 12 and 24 hours after application.

Do initial treatment and repeat treatment on all patients and contacts with clinical infestation on the same day.

Normal laundering is sufficient for clothes and bedding. It is advised that fresh bedding should be used after each treatment. Soiled Linen Bagging Procedure.

Patients should be advised that itching will persist for up to 6 weeks after treatment. This is an immune response and does not necessarily indicate treatment failure. Moisturising antipruritics such as Eurax cream or lotion may be applied to residual itchy areas to ease symptoms.

Household contacts as well as sexual contacts of infested patients should consult their GP and GUM if sexual contact has occurred for treatment even if they are asymptomatic; this also applies to patients from nursing/residential homes, where the matron/charge nurse should be informed immediately as staff will also need treatment.

Staff must liaise with Workplace Health and Wellbeing (WHWB) for advice and guidance if they develop symptoms or are concerned.

If there has been contact with staff prior to a patient's diagnosis, consideration must be given to treating staff. This would be under guidance from WHWB in conjunction with the DIPC and dermatology team.

3.7. Management of Crusted Scabies

Treatment is as above for classical scabies; but it is necessary to increase the number and frequency of applications of treatments in order to eliminate all the mites. It is usually necessary to use creams containing salicylic acid to remove areas of hyperkeratosis. Liaise with a dermatologist for advice if uncertain.

Treatment of crusted scabies requires **at least three applications on day 1, 3 and 7** to ensure enough scabicide penetrates the crusts to kill all the mites. Infestation is often still present after treatment and in resistant cases, or those with immunosuppression, oral Ivermectin may be needed to help prevent treatment failure or hospital outbreaks.

Infection Prevention & Control (IP&C) precautions must continue until the treatment period has been completed and infestation is clear. The patient needs to be nursed in a single room with contact precautions.

Crusted scabies must be notified to UKHSA.

If the patient has been transferred from another healthcare facility, they must be informed of the diagnosis so that they may liaise with UKHSA who will instigate appropriate treatment of residents and carers as required.

3.8. Management of two or more linked cases of scabies (i.e., an outbreak)

If a diagnosis is made in more than one person, the IP&C team and WHWB must be informed, and an outbreak management meeting convened by DIPC. Major and Limited Outbreaks of Infection Guidelines.

Treatment must be agreed with the dermatology team and all close contacts, including patients and staff are advised to have treatment.

It is important to avoid delays in notifying the IP&C team and treatment as this increases the potential for hospital-acquired outbreaks.

Staff should be educated on recognising the signs and symptoms of scabies.

All Consultants whose patients are affected should be made aware of the problem and should be informed of the action to be taken.

All close contacts must be informed. Treatment will be coordinated by the WHWB Department for staff and treatment will be prescribed for the patients by the clinical team in liaison with the dermatology team.

Everyone identified as a close contact (including household contacts) should receive treatment simultaneously to prevent re-infestation.

During the ensuing six weeks, observe for any further presence of scabies so that any possible cases can be dealt with promptly.

4. Related Documents

Isolation Policy
Contact Precautions Poster
Soiled Linen Bagging Procedure
WHWB 27/7 Patient Suspected / Confirmed with Scabies advice for staff
Major and Limited Outbreaks of Infection Guidelines

5. References

Arbesman, J : Alcohol-Based Rub Ineffective Against Scabies Transmission, 2014, Clinical and experimental Dermatology Alcohol-Based Rub Ineffective Against Scabies Transmission | Practice Update Accessed 15/08/2022

British association for sexual health and HIV, 2016, UK national guidelines on the management of scabies. Clinical effectiveness group British association for sexual health and HIV. https://www.bashhguidelines.org/media/1137/scabies-2016.pdf Accessed 15/08/2022

British National Formulary, NNUHFT intranet link that takes you to online BNF and BNFC. https://www.formularycomplete.com/> Accessed 15/08/2022
NHS, Health, A-Z, Scabies, 2020. https://www.nhs.uk/conditions/scabies/ Accessed 15/08/2022

NICE Clinical Knowledge Summary, Scabies, updated 2022. https://cks.nice.org.uk/topics/scabies/ Accessed 15/08/2022

Primary Care Dermatology Society [PCDS] http://www.pcds.org.uk/clinical-guidance/scabies#!prettyPhoto> Accessed 15/08/2022

6. Monitoring Compliance

Compliance with the process will be monitored through the following:

Key elements	Process for Monitoring	By Whom (Individual / group /committee)	Responsible Governance Committee /dept	Frequency of monitoring
Isolation of suspected or confirmed cases of scabies	Following notification to IP&C by ward	IP&C team	Outbreaks will be reported to HICC for information	As and when case occurs
Appropriate treatment	Following notification and prescription	Antibiotic Pharmacist	Cases will be reported to HICC via antimicrobial subgroup	As and when case occurs

The audit results are to be discussed at relevant governance meetings to review the results and recommendations for further action. Then sent to HICC who will ensure that the actions and recommendations are suitable and sufficient.

7. Appendices

There are no appendices for this document.

8. Equality Impact Assessment (EIA)

Type of function or policy	New/Existing (remove which does not apply)

Division	Clinical support Services	**Department**	Infection, Prevention and Control
Name of person completing form	Sarah Morter	**Date**	03/10/2022

Equality Area	**Potential Negative Impact**	**Impact Positive Impact**	**Which groups are affected**	**Full Impact Assessment Required YES/NO**
Race	None		N/A	No
Pregnancy & Maternity	None		N/A	No
Disability	None		N/A	No
Religion and beliefs	None		N/A	No
Sex	None		N/A	No
Gender reassignment	None		N/A	No
Sexual Orientation	None		N/A	No
Age	None		N/A	No
Marriage & Civil Partnership	None		N/A	No
EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?		N/A		

- **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty**
- **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service**
- **The policy or function/service is assessed to be of high significance**

IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED

The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.