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ECTOPARASITIC INFESTATIONS / INFECTIONS: FLEAS, LICE AND MITES (SCABIES) PROCEDURE

Introduction and Aim

An Ectoparasitic infestation often leads to skin irritation, from a bite or the burrowing tracks of a mite, which may lead to a secondary skin infection.

This procedure aims to provide a structure and appropriate advice to staff on the management of Ectoparasitic infestation/infection at all University Health Board locations.

Objectives

- To provide advice on the action required on the admission of a patient with known or suspected Ectoparasitic infestation/infection.
- To provide advice on the action required during an infectious incident or outbreak situation caused by Ectoparasite.
- To provide advice on the communications necessary whenever a cluster of cases of Ectoparasitic infestation/infection develop amongst patients and/or staff.

Scope

This procedure applies to all of our staff in all locations, including those with honorary contracts and students on placement with Cardiff & Vale University Health board.

Equality Impact Assessment

An Equality Impact Assessment has been completed. The Equality Impact Assessment completed for the procedure found there to be no impact.

Documents to read alongside this Procedure

*Hand Decontamination Procedure
Standard Precautions Procedure*

Approved by

Infection Prevention & Control Group

Accountable Executive or Clinical Board Director

Director of Infection Prevention and Control

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Disclaimer

If the review date of this document has passed please ensure that the version you are using is the most up to date either by contacting the document author or the

[Governance Directorate.](#)

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Summary of reviews/amendments			
Version Number	Date of Review Approved	Date Published	Summary of Amendments
2	23.06.15	9 TH November 2015	General Revision as procedure due for review in 2007. Reference to the Standard Precautions and Hand Decontamination procedures.
3	01.05.2019	01.05.2022	Document reviewed

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1. SUMMARY

- 1.1 This procedure details those parasites responsible for human skin infestations. An Ectoparasite is one which lives on the outside of a host (human) rather than within a host's body; examples of which are fleas, lice and mites.
- 1.2 Infestation by fleas usually arises from another animal host such as birds, cats or dogs, which will infest humans in the absence of their preferred host. The human flea, although rare, remains in existence. All fleas can act as vectors for disease.
- 1.3 There are three species of louse which use humans as their host: head, pubis (crab) and body.
 - The body louse is found on human skin and within their clothing, bedding and head attire.
 - The head louse is found on hair, including eyebrows and eyelashes.
 - Pubic or crab lice usually infest the pubic area; more rarely they can be found on facial hair, axilla and body surfaces.
- 1.4 Scabies is caused by a mite who burrows under the skin
- 1.5 Transmission of fleas is by direct contact between person and host.
- 1.6 Transmission of lice and scabies is by direct person-to-person contact.

2. CONTROL MEASURES

2.1 Fleas

Patients admitted with fleas

- 2.1.1 All of the patients clothing and/or bed linen should be removed and treated as contaminated linen. The patient should then bathe/shower. Should a member of staff be required to assist, they should wear personnel protective equipment (PPE), in the form of gloves and aprons, and perform hand decontamination afterwards <http://nww.cardiffandvale.wales.nhs.uk/pls/portal/docs/PAGE/POLICY/PAGEGROUP/LIBRARY/HAND%20DECONTAMINATION%20PROCEDURE.PDF>
- 2.1.2 All surfaces and the surrounding environment should be cleaned thoroughly.

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Ward infestation

2.1.3 Where there is environmental infestation, contact Operational Services who will arrange for a pest controller to visit the area and carry out the necessary decontamination of the environment.

2.2 Lice

2.2.1 There are three species of human lice: head, pubic (crab) and body, all of which are blood-sucking insects, and host specific. Body lice can be found on clothing and body surfaces, particularly in the axillae and waist area. Head and pubic lice are usually found in specific areas (i.e. scalp and pubic hair) but may also be found in other body hair (i.e. axillae, chest, leg, beard and eyebrows). Nits are the egg cases of head lice. They are found firmly attached to the hair follicles 1cm from the skin and are not easily removed. The presence of nits is not necessarily a sign of current infection - they may be an indication of past infection and treatment. Patients therefore should only be treated if live lice are present.

2.2.2 Transmission of lice is by direct person-to-person contact. Head lice can be found in people of all ages but is most common in school children aged four to eleven. It has been estimated that it takes thirty seconds for lice to move from one head to another, therefore transmission requires prolonged head-to-head contact.

2.2.3 Re-infection is possible unless **all** close contacts are checked and if live lice are found, treated. Failures in treatment have been attributed to:

- Poor treatment - where insecticides are not applied adequately.
- Poor contact tracing - where not all close contacts are checked and those infected, treated at the same time. Barriers to contact tracing may be present due to the social stigma associated with head lice infection, though head lice are present in clean and dirty hair.
- Resistance to the insecticide - this may vary according to local resistance patterns.
- Misdiagnosis - where secondary infections have not been recognised as being caused by lice infections.

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Body lice

2.2.4 Treatment of a body lice infestation of patients is achieved by bathing. Wear gloves and aprons to remove patients clothing and/or bed linen, which should be treated as contaminated. Heat labile clothing that cannot be washed at hot temperatures can be washed with a suitable insecticide in the pre-wash. Hands should be decontaminated after removing protective clothing.

Head and pubic lice

2.2.5 When treating patients with head or pubic lice, wear gloves and aprons. Hands must be washed in accordance with the Hand Hygiene Procedure.

2.5.6 Treat head and pubic lice with an appropriate insecticide (available from pharmacy) following the manufacturer's instructions. The usual treatment consists of two applications, with an interval of seven days. If the treatment fails, and the patient still has moving/live lice, an alternative insecticide should be applied (contact pharmacy for advice).

2.2.7 All close contacts of the patient in the preceding four weeks should be referred to their General Practitioner to be examined and for advice on treatment.

2.3 Scabies

2.3.1 Scabies is a common infection affecting all ages, but particularly children and the elderly. Scabies should be particularly suspected in patients with no previous history of skin problems who suddenly develop pruritis that may be worse at night. Whilst scabies infection is not a life threatening condition, persistent pruritis can be debilitating.

2.3.2 Scabies is an allergic reaction to the excretion of saliva of a small mite, which burrows and lays eggs under the skin. The incubation period in people without previous exposure is two to six weeks, but one to four days in people who have had previous infection.

2.3.3 The rash may commonly appear as:

- Fine lines (burrows) in finger webs, anterior surfaces wrists and elbows, axillary folds, the belt line, thighs and external genitalia of men; nipples, abdomen and the lower part of the buttocks are frequently affected in women.
- Red erythematous rash, which is a result of the allergic response to the presence of the mite.

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Note:

- In infants, the head, neck, palms and soles of the feet may be affected.
- The rash may be atypical in the elderly and present as a generalized dermatitis

2.3.4 Transmission of the scabies mite is by prolonged direct person-to-person contact, this includes sexual contact. Mites can burrow beneath the skin surface in 2.5 minutes.

Transfer from clothes and bedding only occurs if these have been contaminated immediately beforehand.

2.3.5 Norwegian (crusted) scabies occurs when the infected person has an immune deficiency. When the immunocompromised patient is unable to respond to the infection, the mite multiplies rapidly, causing many thousands of mites to spread all over the body. This widespread infection results in hyperkeratotic (crusted) lesions. Crusted scabies may also be localized, affecting the fingers, toes or head. Skin scales and crusts are heavily contaminated and affected individuals are highly infectious.

Control measures

2.3.6 The Infection Prevention and Control Team (IPCT) should be informed of any case of scabies within the UHB.

2.3.7 Gloves and aprons should be worn for contact with a patient with scabies. Hands must be washed with soap and water and then disinfected with an approved hand disinfectant (e.g. alcohol gel) (see hand hygiene decontamination procedure) following patient contact and on removal of protective clothing.

2.3.8 **Contact dermatology for confirmation of all suspected cases of scabies and for advice on appropriate treatment.**

2.3.9 All patients should be reviewed seven to ten days following completion of treatment. If new burrows have appeared, then another course of treatment should be undertaken in discussion with the Dermatologists. The subsequent treatment should contain the active ingredient in another class of insecticide. Patients should be followed up for a month before treatment can be regarded as successful.

2.3.10 Pruritis may persist for several weeks following successful treatment and there is often secondary eczema caused by scratching. Persisting

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eczema can be treated with Eumovate ointment twice daily for 7 to 10 days. Pruritis without eczema can be treated with simple emollients or 1% menthol in oily calamine lotion.

Patients identified with scabies on admission

2.3.11 Isolation of the patient in a single room is normally unnecessary, though as the mite is spread by contact, management is usually easier in a single room. The appropriate precautions need to be taken for 24 hours after the start of treatment.

2.3.12 Application of the insecticide should be in accordance with the manufacturer's guidelines. The usual treatment consists of two applications of the insecticide with a seven-day interval between treatments. The patient should not be bathed prior to application of the insecticide as this affects the efficacy of the topical treatment. Particular attention should be given to under the fingernails, the soles of the feet and all flexional areas. The insecticide should be applied to the scalp and face (avoiding the eyes, nose and mouth). If washed off in the first few hours, it should be reapplied.

2.3.13 Following treatment, linen should be treated as contaminated linen. The bed and bed area should be thoroughly cleaned.

2.3.14 All family and close contacts should be advised to see their General Practitioner for advice on treatment.

2.3.15 If the patient has been admitted from another hospital or nursing home, the ward staff should inform the relevant hospital or nursing home of the patient's condition.

Patients developing scabies following admission

2.3.16 The incubation period from exposure to the scabies mite and the appearance of a rash can be up to six weeks. Thus if the patient has been admitted to hospital in the preceding six weeks, family and close contacts should be advised to consult their General Practitioner for treatment. If the patient has been admitted from another hospital or nursing home the relevant ward or nursing home should be informed. Careful surveillance of other patients and staff should be kept for the period of the incubation period to see if they develop any sign of scabies. The patients should be treated with an insecticide, following the manufacturers' recommendations.

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2.3.17 If the patient has been an inpatient for longer than the expected incubation period other patients in the same area of the ward (especially in elderly or immunocompromised patients) should be treated with an insecticide in the same twenty-four hour period. Consideration should be given to treating all other patients on the ward.

2.3.18 The single room or ward area should be thoroughly cleaned within twenty-four hours of commencement of patient treatment.

Wards with multiple cases of scabies

2.3.19 If more than one patient is infected on the same ward, cohorting of the patients in one area of the ward can be considered in consultation with the IPCT.

2.3.20 If the affected patients are in a single ward area (e.g. a four bedded area) only the patients in that area should be treated with an insecticide in the same twenty-four hour period. If the affected patients are from different parts of the ward, all patients should be treated with an insecticide in the same twenty-four hour period. If a staff member develops a rash, they should contact the Occupational Health Department for advice.

2.3.21 Where patients have been discharged to other hospitals or nursing homes, ward staff should inform the receiving institution.

2.3.22 Families of all affected patients should be advised to contact their General Practitioners.

Crusted scabies

2.3.23 Patients diagnosed as having crusted scabies should be isolated in a single room because of the increased number of mites affecting the patient. Advice on treatment must be obtained from a dermatologist.

2.4 Decontamination of ward area

2.4.1 Mattresses should be cleaned with a dual disinfectant/detergent product and dried following completion of the patient's treatment.

2.4.2 Bed linen and patients' clothes should be treated as contaminated linen. Heat labile clothes that cannot be washed at a hot temperature can be washed with a suitable insecticide in the pre-wash. Furniture and floors should be vacuum cleaned prior to washing.

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2.5 Healthcare personnel

2.5.1 Standard precautions must be applied for all contact with infected patients

<http://www.cardiffandvaleuhb.wales.nhs.uk/sitesplus/documents/1143/Standard%20Precautions%20final%202014.pdf>

2.5.2 Where there is prolonged contact with an infected patient, staff must ensure that all areas of their hand or arms in contact with the patient should be thoroughly washed (see [hand decontamination procedure](#))

2.5.3 Any staff member/student who develops a rash that may be scabies should contact the OHD as well as inform the IP&C team.

3. RESPONSIBILITIES

3.1 The Health Board is responsible for the approval of the Ectoparasitic infestations/infections: Fleas, Lice and Mites (Scabies) Procedure.

3.2 Individual directorates will be responsible for the implementation of the procedure document in clinical areas.

3.3 The Infection Prevention and Control Department will be responsible for the distribution of the document throughout the Health Board.

3.4 Infection prevention and control is the responsibility of all staff associated with patient care.

4. RESOURCES

4.1 Adequate supplies of the materials required to control the spread of ectoparasites at ward level must be available at all times.

5. TRAINING

5.1 Mandatory Infection and Prevention and Control training updated every two years.

5.2 Further departmental based training as identified by training needs analysis.