1. **Body Lice (Pediculus Humanus Corporis)**

**KEY POINTS**

- Usually found in persons who live in conditions of overcrowding and have poor personal hygiene
- Humans are the only host of the body louse
- Adult body lice are 2.3 – 3.6mm in length
- Live and lay eggs on clothing and only move to the skin to feed
- Lice can crawl, but cannot fly, hop or jump
- They are able to spread disease
- Animals do not play a role in spreading human lice
1.1 Signs and Symptoms

- Intense itching (pruritis), worse around the waist, under arms, and areas where the clothing is tighter and close to the body.
- Rash (allergic reaction to bite)
- Red raised areas on the skin
- Heavily darkened areas may be present where lice infestation has been long term
- Head lice and pubic lice may also be present

Diagnosis is usually by finding eggs and crawling lice in the seams and folds of clothing.

1.2 Transmission

- Through direct contact with a person who has body lice
- Through contact with clothing, beds, bed linen, towels, that have been in contact with the infected person

1.3 Treatment

- Improving personal hygiene
- Regular changing of clothing, washing bed linen
- Generally body lice do not cause other health problems; however scratching may cause open wounds, leading to secondary infections
- If lice are present in other areas consideration should be given to the application of an insecticidal lotion/cream

1.4 Infection Control Measures

- Staff should wear gloves and aprons when delivering personal care
- Bed linen, towels and clothing should not be shared. All linen and clothing should be treated as infected and placed in a red bag for laundering. Bed linen and towels should be laundered at the central laundry. Clothes should be laundered in a red bag at the highest temperature that the fabric will tolerate, preferably a minimum of 55°C and dried in a tumble dryer
- Encourage personal hygiene in the infected person
- Family members who have had close/sexual contact should be advised about laundering clothing and linen
- Contact the IPC matron for further support and guidance
2 Head Lice (Pediculus Humanus Capitis)

KEY POINTS

- Head lice are parasitic insects that can be found on the head, eyebrows and eyelashes of humans.
- A diagnosis can only be made if a living louse is seen
- The louse moves by crawling, they cannot jump, hop or swim
- Transmission is by close prolonged head to head contact
- It is important that close contacts are identified and encouraged to check their own hair for head lice

2.1 Forms of head lice

- **Nits**: these are the eggs from head lice, sometimes confused as dandruff. They take approximately 1 week to hatch after attaching themselves to the hair shaft
- **Nymphs**: these are baby lice, smaller than adults and take 7 days to mature
- **Adults**: have hook like claws to hold onto the hair. They can live up to 30 days and feed on blood

2.2 Signs and Symptoms

- Can be asymptomatic
- Pruritis (itching) – Most common symptom caused by an allergic reaction
- Tickling or itching, feeling of something moving in the hair
- Irritability, sleeplessness
- Sores on head, caused by scratching

2.3 Transmission

**Commonly**
- Through direct, prolonged head to head contact with an infected person

**Uncommonly**
- Through infected combs, brushes, towels
- Wearing hats, scarves, coats, hair accessories worn by an infected person
- Lying on a bed, couch, pillow, carpet of an infected person
2.4 Diagnosis

- A diagnosis can only be made if a living moving louse is found.
- Use of a fine hooked louse comb will assist with the identification of a live louse.
- Finding nits within ¼ (6mm) of the base of the hair shaft suggests but does not confirm a person is infected. Nits are often confused with dandruff, or hair styling products.
- If no nymph or adult lice are found, and only nits more than ¼ inch (6mm) from the scalp, this suggests an old infection, no longer active that does not require treatment.

2.5 Treatment

Chemicals

- Once diagnosis has been confirmed, staff should contact pharmacy to discuss treatment.
- Treatment should be applied according to the instruction sheet that accompanies the medication.
- Particular attention should be paid to the length of time the medication is required to stay on the hair and how it should be washed out.
- It is essential that the information leaflet is read and understood prior to treatment.
- In general most chemical treatments require two applications, 7 days apart.
- Comb dead and any remaining live lice out of the hair using a fine-toothed nit comb.

Contraindications for chemical treatments

- Preparations with an alcohol base should not be used in children under 5 years.
- Preparations with an alcohol base are contraindicated for people who have scalp dermatitis or asthma.

2.6 Treatment failure

- Treatment failure is usually due to misdiagnosis, incorrect application of treatment or close contacts were not identified at the initial diagnosis.
• Wet combing is a less effective method at treating head lice and is therefore not recommended.

2.7 Infection Control Measures

PPE
• Gloves and apron must be worn during the application of chemical treatments

Laundry
• After the removal of treatment bed linen should be changed
• No special laundry requirements are necessary for bed linen, towels, personal clothing

Isolation
• Isolation is not required, however until treatment is completed staff should ensure that the infected patient does not have head to head contact with either other patients/clients or staff

Close Contacts
• It is important that close contacts such as family members are made aware of the diagnosis and are encouraged to inspect their own hair and if infection found encouraged to seek treatment
• Staff should also inspect the hair of other patients/clients especially where head to head contact is likely

Note: Only treat contacts of patients/clients if a living moving louse is found.
• It is important to remember that pruritis (itching) may still occur for 2-3 weeks after the treatment. It is important to re-check the patient/clients hair
• Remember infection is only present if a live louse can be seen

3 Pubic Lice (Crab) Pthirus Pubis

KEY POINTS

• Pubic Lice are parasitic insects found primarily in the pubic or genital areas of humans
• These lice are usually spread by sexual contact
• May also be found in course hair such as beards and eye lashes

3.1 Signs and Symptoms

• Itching in pubic area, often worse at night
• Visible nits or crawling lice
• Sores in the genital area
• Secondary local infection, e.g. impetigo
• Can infect all course body hair, axilla, chest, beard, eyebrows, eyelashes

3.2 Transmission

• Through sexual contact with an infected person
• Very occasionally through contact with articles such as clothing/ bed linen, or towels that have been used by an infected person

3.3 Diagnosis

• Sighting of a live louse
• May be difficult to see but if nits are present this strongly suggests that a person is infested and should be treated

NOTE: Consideration should be given to testing for other sexually transmitted infections (STIs) when a diagnosis of public lice is confirmed or suspected

3.4 Treatment

• **Chemical** – Insecticidal lotion or cream. Once diagnosis has been confirmed, staff should contact pharmacy to discuss treatment.
• Treatment should be applied according to the instruction sheet that accompanies the medication.
• Particular attention should be paid to the length of time the medication is required to stay on the hair and how it should be washed out.
• It is essential that the information leaflet is read and understood prior to treatment.
• In general most chemical treatments require two applications, 7 days apart.
3.5 Infection control Measures

- **Staff should wear gloves and aprons** whilst applying treatment
- **Ensure the patient is clean and dry** before applying treatment
- **The lotion** should be applied to the whole body including scalp, face, neck and ears
- **If any part of the body** becomes wet during treatment time the lotion should be reapplied
- **Eyebrows**, beards, moustache, pubic hair, should be covered
- **Eyelashes** – If eyelashes are infected, they should be treated at the same time. An alternative lotion will be prescribed. Please discuss with the pharmacist

**Laundry**

- After the removal of treatment bed linen should be changed
- Patient should not share towels, clothing or bed linen
- All linen should be treated as infected and placed in a red bag

**Isolation**

- Is not required

**Contacts**

- Close contacts (sexual partners) should be advised to receive treatment at the same time, whether infection is confirmed or not

4 **FLEAS (Pulex Irritans)**

**KEY POINTS**

- In the UK – human fleas are rarely a problem and can be cured by removal of infested clothing
- Most flea infestation are host specific – dogs, cats, rabbit, rodent

4.1 **Adult Flea**

- Flat, with hair like bristles on the body and legs to aid in their navigation through pet hair
- pairs of legs. Fleas are noted for their jumping abilities
• Small wingless 1 – 8mm not adverse to biting humans, not host specific

4.2 Signs and Symptoms

• Cat fleas will bite humans – usually observed on the lower leg, bites observed are usually clustered. A spot appears after 5 – 30 minutes accompanied by intense itching, next day vesicle appears
• Scratching leads to secondary infection
• Reactions can be delayed up to 24 hours
• Vacuuming the environment
• Patient clothing should be sent to laundry
• Discuss with facilities and Infection, Prevention and Control

5 Scabies

KEY POINTS
• Scabies occurs worldwide and can affect all socio economic groups. In some parts of the world it is endemic
• The scabies mite is entirely dependent upon humans to live, inanimate objects e.g. furniture, clothing, bedding are not regarded as a source of transmission
• The scabies mite is transmitted by close prolonged skin to skin contact
• Norwegian crusted scabies is highly infectious and require specific infection control advice
• It is essential that treatment is applied correctly
• Outbreaks commonly occur in nursing/residential settings, long stay facilities and child care settings

5.1 Life Cycle
• Oval straw covered coloured mites measuring 0.2 – 0.4 mm in length
• Mites have no eyes, short thick legs, and their bodies are covered with fine lines and hairs
• The entire life cycle of a scabies mite occurs over 10-17 days
• The average infected adult human has an estimated 15 adult female mites living on the body
• Each female mite can produce up to 40 eggs

5.2 Signs and Symptoms

• Itching particularly at night is the most common symptom
- **Rash** - small red papular, (hard, round) but may be vesicular (fluid filled), or nodular. Most obvious on inner thighs, axilla, periumbilical region, buttocks and genitalia

- **Areas of broken skin** and or excoriation where skin has been scratched. Occasionally a secondary bacterial infection may be present due to persistent scratching

- **Burrows** – difficult to identify. Commonly found in finger and toe webs, wrists and elbows. Appearance as greyish, dark, silvery lines approximately 2 – 15mm in length with a minute spec at the close end. May also be found on the ankles, feet, genitalia and nipples

5.3 **Transmission**

- The scabies mite is passed from an infected person to another after prolonged skin to skin contact
- In adults, sexual contact is an important method of transmission
- Bed linen, clothing, floor coverings are **NOT** thought to play a role in the transmission with the exception of Norwegian crusted scabies. See separate note
- A person remains infectious until after 24 hrs after treatment

5.4 **Incubation Period**

- In people with no previous exposure the onset of itching is within 2 – 6 weeks. In people who have been previously infected, symptoms can occur within 1 – 4 days

5.5 **Diagnosis**

- Diagnosis is usually made based upon a clinical history, distribution of the rash and the presence of burrows and itching especially at night
- Definitive diagnosis is ultimately achieved by identifying the mite or eggs from the skin scrapings under a microscope
- Treatment should never be delayed if scabies is clinically suspected

5.6 **Management and Treatment**
• Scabicidal lotion or cream is the usual treatment of choice to treat scabies. On diagnosis, pharmacy should be contacted to discuss treatment and the Infection Control Modern Matron should also be informed of the diagnosis.

The information leaflet enclosed with the medication should always be read prior to treatment. Correct application is essential for successful treatment

• Patients should not have a bath prior to application of the lotion/cream. The skin should be cool and dry
• The lotion / cream is best applied before retiring to bed
• The lotion/cream should be applied over the whole body, paying particular attention to the webs of the fingers and toes and ensuring that the lotion is applied under the tips of the nails. Nails should be kept short
• Patients do not require isolation but should be discouraged from skin to skin contact with other patients until after the treatment has been completed
• Disposable aprons and gloves should be worn by staff when caring for a patient with scabies
• If the patient washes his/her hands during treatment then the lotion/cream should be reapplied
• The treatment should be washed off after the recommended length of time
• Clothes and bed linen should be washed after treatment. No special precautions are required for the laundering of garments
• Relatives/visitors who are identified as close contacts of the infected person should be advised to contact their Gp to discuss treatment
• Treatments should be reapplied 7 days after the first treatment. Failure to comply will result in unsuccessful treatment
• Itching commonly persist for up to 3 weeks after successful treatment

Treatment failure is likely if

• Treatment was incorrectly applied, or not applied 7 days after the first treatment
• Identified contacts were not treated simultaneously

SPECIAL NOTE
Norwegian Crusted Scabies
This form of scabies is considerably more infectious than ordinary scabies and is typically found in people with HIV infection or an impaired immune response. The body is unable to control the mite infection and therefore the mite multiplies rapidly and spreads all over the body. The mite population on the body can be up to 2 million.

Clinical Presentation

- Crusted lesions are seen on the hands, feet, nails, scalp and ears
- Itching may not be present
- It is highly contagious

Treatment

- Patients who have Norwegian crusted Scabies should be isolated.
- All linen and clothing should be handled as infected linen. Bed linen and towels should be placed in a red bag and laundered by the Trust laundry. Personal clothing should be placed in a red bag and laundered separately.
- Treatment should be discussed with pharmacy.
- **Contact Infection Control Matron to discuss infection control measures**

References


Guidance for Mass Treatment in the Event of an Outbreak of Scabies

Mass treatment of patients and staff with scabicidal lotion should always be carried out under the guidance and support from the Infection Prevention Control matron. The IPC matron will undertake a risk assessment to establish if mass treatment of patients/staff is required.

A suspected outbreak of scabies is defined as:

- Two or more people (staff and or patients) diagnosed with scabies by a clinician or
- Two or more people (staff and or patients) with an unexplained rash, diagnosed by a clinician as probable scabies.

Wherever possible, scabies should be diagnosed by an appropriately trained clinician.

When undertaking mass treatment, planning may take several days and must be coordinated effectively to ensure all contacts identified undertake treatment on the same day.

N.B. Non compliance by just one individual may make the difference between successful treatment or not

- The IPC matron will work closely with the Ward Manager to identify close contacts of the patients
- All close contacts identified who are not patients or staff employed by Northumberland Tyne & Wear FT should be advised to contact their GP and discuss treatment
- All patients should be informed of the planned treatment date and the reason.
- Prescriptions should be obtained and pharmacy informed of the proposed treatment date
- All staff and contacts should be informed of the planned treatment date
- Laundry and personal clothing are not regarded as a route of transmission and therefore do not require any special measures to be taken.
- Staff who are symptomatic need to ensure that their household and/or sexual contacts are also treated at the same time
- Whilst applying treatment, staff should wear personal protective equipment
  - **IPC - PGN 2.1 Standard Precautions**
    - Ensure that treatment application is strictly adhered to
    - All linen on the beds should be renewed after the removal of the first treatment
    - Treatment should be repeated in 7 days
Treatment of a Single Case of Scabies

Case confirmed or suspected as scabies

Inform IPC matron

Obtain prescribed scabicidal from pharmacy

- Apply treatment
  - If contacts identified ensure treatment applied on the same day.

Repeat treatment in 7 days

Identify close contacts with ward manager

Complete IR1 Form
Treatment of Two or More Cases of Confirmed or Suspected Scabies

Staff

Confirmed or suspected case of scabies in **two** or more patients or staff.

- Inform IPC matron
- Identify contacts with ward manager
- Advise and support the ward staff

Inform patients/relatives of scabies outbreak
- Inform identified contacts who are relatives or visitors and advise to contact GP

Complete IR1 form

Obtain prescribed scabicidal for treatment
- Discuss with pharmacy, planned treatment date

Notify staff, patients, contacts and visitors of planned treatment day

Apply treatment

Repeat treatment in 7 days