Leicestershire Partnership NHS Trust

The Management of Head Lice Policy

This policy describes the processes and procedures for the management of head lice. It has been developed for staff working within LPT.

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Which Relevant CQC Fundamental Standards?	8	

Contents

Version Control and Summary of Changes

Version number	Date	Comments (description change and amendments)
Version 1, Draft1	March 2008	New guideline: Infection Control guideline for the management of Patients with Head Lice in community health services, inpatient facilities and primary care
Version 2, Draft 1	January 09	Review of Guideline by Amanda Howell
Version 3, Draft 1	July 2010	Review of guideline for LCCHS and distributed for consultation
Version 3 Draft 2	October 2010	Amendments following consultation process. Comments received from: Tejas Khatau, Zoe Harris, Clare Shaw, Chris Otway, Una Willis, Fay Findley, Sally O'Shea and the Health Protection Agency
Version 3	October 2010	Copy approved at the Clinical Governance Committee
Version 4	July 2011	Harmonised in line with LCRCHS, LCCHS (Historical organisations) and LPT
Version 5	April 2018	Reviewed in line with current guidance and format updated in line with current LPT format
Version 6	June 2021	Reviewed in line with current guidance – guidance remains as current. Format updated in line with current LPT policy format

For further information contact: Infection Prevention and Control Team

Definitions that apply to this Policy

Head Louse/Lice	Small wingless, insect with claws which lives on the human head and eyebrow hair
Infestation	The presence of animal parasites such as fleas, mites and tapeworms on the skin or in the body, or in the clothing or the home
Nits	Empty egg cases
Parasite	Any living organism that lives in or on another living organism (host)
Public Health Consultant	A consultant who is knowledgeable in infectious diseases
Source isolation Precautions	Precautions implemented within inpatient facilities to minimise the risk of transmission of a known or suspected infection from one patient to another

1.0 Purpose of the policy

Staff working within LPT provide a number of health services to the wider community. This policy provides information on the processes required when treating, managing or giving advice on head lice. It will support the prevention of cross infestation amongst the wider population. The policy has been produced in accordance with published evidence and national best practice guidelines.

2.0 Summary and scope of policy

This policy describes the means of transmission of head lice and potential risk to others. It provides information on detection, treatment and prevention of head lice.

Different products that can be used, contact and treatment times and procedures without the use of chemicals are detailed within the policy

3.0 Introduction

Head lice are a common problem. There are no figures for the number of people in Britain with head lice at any one time but a national survey in Wales suggested the figure could be as high as 10%. About 80% of cases are amongst children between the ages of 4 to 16, head lice being most common amongst the 7 – 11 year age group; especially girls.

The main source of infestation from head lice is in the community, and adults as well as children can be infected

4.0 Head lice facts

The head louse (Pediculosis humanus captius), is a small wingless (about the size of a pinhead and greyish brown in colour), insect with claws which lives on the human head and eyebrow hair. It is a human parasite and cannot infect or be caught from pets or other animals. Head lice infestation is known as pediculosis capitis (NICE 2016).

The severity of infestation varies from a few lice (less than 10) to more than 1000 in severe cases, but a typical infestation might have about 30 lice per head. If left untreated, head lice infestation may persist for long periods.

The life cycle of the louse involves three stages. Nits, or eggs, may take between 7 and 10 days to hatch and must stay warm to do so. Once hatched, nymphs feed on blood drawn from the scalp of their host and grow into adult lice (Aronson & Shope 2009). They then are able to reproduce for 2 to 3 weeks, and the female louse may lay up to eight nits each day.

In general, adult lice that successfully feed on a human host may survive up to 40 days and can start laying eggs when they are 7 days old. Adult lice are the size of a sesame seed. A female will live for approximately one month, laying 4 – 6 eggs a day which take up to 7-10 days to hatch. During their lifespan they are capable of laying 100 eggs. They cannot live more than 48 hours away from a feeding source. Both saliva and fecal matter from the lice may lead to inflammation of the host's scalp, and itching may continue for weeks after treatment.

Infestation of head lice rarely leads to secondary infection, but it is possible in patients who scratch the affected area. Live lice can be transmitted through close personal contact or sharing of personal items such as pillows, hats, or hairbrushes (Ferri 2012). They cannot fly or jump; neither can they burrow into the scalp.

Head lice are not spread or eradicated when a patient is swimming; when immersed in sea water or chlorinated water, head lice have been observed to become immobile and grip firmly to the patient's hair. As soon as head lice are removed from the water, they begin to feed. Death was not observed within 4 hours after a 30-minute submersion and recovery in both types of water (Canyon & Speare 2007).

Head lice stay close to the scalp where it is warm and they can easily feed by sucking blood, they lay their eggs close to the scalp, gluing them to the base of the hair. The eggs are yellowy white in colour until they hatch, making them difficult to detect. As soon as the louse feeds it becomes coloured, but remains camouflaged by reflecting the colour of its surroundings. Live eggs and head lice are not easily spotted on the head.

Nits are empty egg cases left after the louse has hatched; these are glued on to the hair shaft; they are white and can look like dandruff but are shiny and are difficult to remove from the hair.

Nits may be present, but this does not automatically mean that the person has live lice on their head; close inspection should be undertaken to ascertain if there is an active case of head lice. An individual only has head lice if they can find a living moving louse (not a nit).

5.0 Transmission of head lice

Lice are transmitted by human head to head contact. Lice crawl, they cannot jump or fly. It is not scientifically proven that head to head contact has to be prolonged to catch head lice – close contact is enough with just enough time to allow a louse to move from one head to another.

Head lice that are found in clothing and bedding will be dying and can readily be washed off. Once away from the scalp of the human host they have lost their source of food and warmth and will die within 1 to 2 days. Lice that live in clothing are clothing lice and are rare in developed countries.

Head lice that are caught on combs and brushes are rarely damaged and can re-establish themselves if brushed back into the hair within 24 hours. Combs and brushes should be checked and washed with detergent and water and rinsed between uses and should not be shared with others.

6.0 Diagnosis

Diagnosis can only be made by demonstrating the presence of live lice. In most cases this can best be achieved by using a detection comb (available from pharmacists) on wet hair to remove any live lice. The detection comb has been

specially developed to remove head lice. This is by way of the small diameter of the teeth on the comb. Normal combs do not achieve the same result as the teeth are too wide apart. Head lice become immobile when wet so are easier to remove from the hair shaft.

7.0 Clinical features

The majority of infestations are asymptomatic. Lice use a local anaesthetic to make the feeding process painless. An allergic reaction develops to the louse saliva, causing an itch. This reaction can take up to 3 months to develop and carriers easily become desensitised and no longer notice the bites.

When noticed, symptoms may include:

- Itching and/or a tickling feeling of something moving in the hair.
- A pruritic (itchy eczema like rash) may be apparent at the back of the neck.
- Secondary bacterial infection may be a complication.
- Scratch marks and a sticky weeping scalp
- Small itchy pink bumps around the edge of the scalp, particularly on the back of the neck
- Enlarged glands in the neck, and impetigo (bacterial infection)
- Secondary bacterial infection may be a complication

8.0 Detection

Wet combing is a method of detecting live head lice, but it can also be used as a treatment method (see section 9).

You will need: a plastic detection comb (teeth spacing of <0.25mm), any brand of hair conditioner, (the purpose of the conditioner is that it makes the hair too slippery for the lice to hold on to), a piece of white paper and good lighting. Before detecting lice you may need to untangle the hair using a normal comb (which should be washed prior to re-use).

Fine metal combs are not recommended as they can damage the skin and pull the hair which can cause it to break off at the root.

- Wash the hair well with ordinary shampoo (any brand is suitable), rinse, then towel dry using a clean towel (the hair should be damp).
- Apply hair conditioner. Do not rinse off, (a 2 in 1 shampoo/conditioner preparation is not acceptable).
- Starting with the teeth of the detection comb touching the skin of the scalp at the top of the head, comb carefully towards the end of the hair onto a piece of white paper. This aids visible identification.
- Look carefully at the teeth of the comb in good light; any head lice will be caught between the teeth. Wipe the comb between the strokes.
- Do this repeatedly from the top of the head to the end of the hair, working all the way around the head.
- The process will take a minimum of 10 to 15 minutes to be performed effectively.

- Rinse the conditioner out of the hair.
- Dry hair naturally or with hair dryer
- Complete wet combing on days 1,5, 9 and 13 to catch any newly hatched headlice
- Check that the hair is free of headlice on day 17
- Wash combs with warm soapy water.
- Wash towels/linen as normal (do not share linen)

When a case of head lice is detected, all those that have been in close contact with that person should be informed and advised to have their hair checked, preferably using the wet combing method.

9.0 Treatment

Can a head lice infestation be cleared?

Yes, but this is not always easy as some lice are now resistant to the insecticides used to treat them, and repeated infestations are common

How can a head lice infestation be treated?

Treatment is needed only when an active louse infestation is present; as shown by the presence of living and moving lice, or of eggs that have not hatched and are attached to the hairs close to the scalp. Neither itching by itself, nor evidence of an old infestation (only empty egg cases), is a reason for starting treatment.

Background

Neuro-toxic insecticide medications are not recommended within these guidelines for the treatment of head lice. This includes lotions, liquids, crème rinse, mousse and shampoos containing malathion, permethrin, phenothrin or carbaryl.

Treatment failure using insecticide products is common, but it is unclear whether this is due to poor application of the product, or resistance issues. In recent years head lice have become resistant to many existing treatments resulting in long-term infestations within schools and communities. (Downs et al 2002).

'Natural' medications are not recommended within these guidelines for the treatment of head lice. This includes shampoos, solutions, conditioners etc. containing plant essential oils, enzymes and herbal extracts etc. They are usually marketed as a substitute for insecticides, to be used in conjunction with a detection comb.

There is no proof of effectiveness of these products and they are unlikely to kill eggs, some that have been tested have been found not to have any effect at all. They may be potentially toxic or an irritant and may contain conventional pesticide residue.

Electronic combs are not recommended within these guidelines for the treatment of head lice. These are battery powered devices with fine-tooth metal combs that aim to electrocute the lice with an electric current that runs through

the teeth.

These devices are not safe to use on wet hair and when used on dry hair the lice move away from the disturbance and therefore evade the comb teeth and electrocution. They cannot be used on people with epilepsy, heart disease, a pacemaker or other neurostimulator.

Wet combing is recommended within these guidelines for the detection of head lice. However it can also be used as a treatment method. Wet combing as described in section 5.3.3 can be repeated 3 times at intervals of 4 days to gradually remove all adult lice and the lice as they hatch from the eggs. The combing process is time consuming; the length of time it takes is dependent upon the extent of the infestation and the length of hair. A Bug Buster Kit containing special combs is available from the Community Hygiene Concern (www.chc.org).

The Bug Busting technique has been reported to be highly effective at eradicating infection and is particularly useful for treating children. (Figueroa 2000). However controversy exists about the practicality of a mechanical method of lice eradication that is very time consuming.

First Line Treatment

First Line treatment is with **4% dimeticone lotion**

This is an odourless, colourless formulation which does not contain neurotoxin insecticides, and can be purchased over the counter at pharmacists and retail outlets. It contains 4% dimeticone (a silicone), in a silicone base, called cyclomethicone. Both silicones are used extensively in cosmetics and toiletries.

The product dries by the evaporation of the cyclomethicone, leaving the dimeticone fully encapsulating the louse and thus killing it by preventing it from functioning. As dimeticone lotion kills lice physically rather than by poisoning, it is effective against lice resistant to insecticide treatments. Lice cannot become resistant to this type of treatment.

As dimeticone is not absorbed through the skin it can be used on children (from six months of age) and can be recommended for asthmatics, pregnant women and breastfeeding mothers. It can also be used repeatedly as required. In a clinical trial, 2% of patients reported irritant reactions to dimeticone and 9% to phenothrin. (BMJ, 18 June 2005: 330: p1423-1425).

Treatment should only be started when living lice have been shown to be present. To ensure that the treatment works it is important that it is applied correctly as per the manufacturer's instructions.

This is normally a two-dose treatment. It should be applied to dry hair, ensuring that the hair is fully covered from roots to tip and should be left to dry for 8 hours or left on overnight. The hair can then be washed and combed in the usual way to remove the dead lice. The nits can be removed with the fingers or a fine toothed comb. A second treatment should be applied after 7 days to deal with any eggs that may have hatched since the first application. To check that the treatment has been effective, use a detector comb 24 hours after the second treatment. If live

lice are found then the entire treatment should be repeated until no live lice are present. A 50ml bottle should be sufficient for a two-dose treatment of short hair. Longer hair or multiple treatments will require a 150ml bottle.

If repeated treatment with this product, 4% Dimeticone does not clear an infestation or a patient is not able to or will not use Hedrin, an alternative method of treatment will have to be considered. Public Health England should be contacted for alternative treatment.

10.0 Prevention

When a case of head lice is detected, all those that have been in close contact with that person should be informed and advised to have their hair checked, preferably using the wet combing method described in section 5.3.3.

Following treatment of head lice it is recommended that wet combing is used weekly as a preventative measure. It should be introduced as part of the child's bathing routine, using conditioner and wet combing technique to check for live lice.

It is recommended that those households with school age children (particularly nursery and primary school age); make wet combing a weekly activity for all members of the household.

Hairbrushes and combs should not be shared. It is unlikely that head lice are transferred in this way, but if a hair brush is used immediately after someone with head lice there is potential for a louse to be transferred via the brush.

11.0 Infection prevention and control precautions within in-patient areas

Patients who have an active case of head lice must be nursed using source isolation precautions until 24 hours following completion of the initial treatment, and the hair has been checked and is clear of live lice.

The Infection Prevention and Control team must be informed

Change and wash all night clothes and bed linen once treatment is completed, treat as infected linen.

Patients should be treated with a lotion whose active ingredient is **4% dimeticone lotion**. In difficult cases where a patient cannot comply with treatment or if following treatment with the lotion which has the active ingredient of 4% dimeticone lotion, live lice are still detected, contact Public Health England to discuss the use of an alternative lotion. This alternative treatment should only be prescribed following discussion with a public health specialist.

12.0 Infection prevention and control precautions within the community

Adults or children with an active case of head lice should not be excluded from nursery, educational establishments or work or any other social contact.

It is recommended that following the detection of live head lice, treatment is carried out before returning to nursery, educational establishments or work.

In a school setting where a number of children are affected with head lice it may be appropriate to inform parents of the situation. This should not be routine when there is one affected child. The school nurse and/or Health Visitor need to be involved to offer support and education to parents and children on the management of head lice.

There is no need to specially treat clothing or linen that has been in contact with anyone who has live head lice. It should be washed as per manufacturer's instructions.

13.0 Risks to staff

There is minimal risk to staff, as there needs to be direct head to head contact for the lice to transfer form one head to another.

14.0 Family members, carers and close associates

Family members, carers and close associates do not need to be treated, unless live head lice are detected. It is therefore important that anyone having head to head contact with the affected person is advised to have their hair checked using the wet combing method.

15.0 Training needs

There is no training requirement for this policy.

16.0 References and bibliography

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Appendix 1

PRIVACY IMPACT ASSESSMENT SCREENING

Privacy impact assessment (PIAs) are a tool which can help organisations identify the most effective way to comply with their data protection obligations and meet individual's expectations of privacy. The first step in the PIA process is identifying the need for an assessment.

The following screening questions will help decide whether a PIA is necessary. Answering 'yes' to any of these questions is an indication that a PIA would be a useful exercise and requires senior management support, at this stage the Head of Data Privacy must be involved.

Name of Document:	**The management of head lice policy**		
Completed by:	**Mel Hutchings**		
Job title	**Infection Prevention and Control Nurse**	**Date**	**18/05/2021**

	Yes / No
1. Will the process described in the document involve the collection of new information about individuals? This is information in excess of what is required to carry out the process described within the document.	**No**
2. Will the process described in the document compel individuals to provide information about themselves? This is information in excess of what is required to carry out the process described within the document.	**No**
3. Will information about individuals be disclosed to organisations or people who have not previously had routine access to the information as part of the process described in this document?	**No**
4. Are you using information about individuals for a purpose it is not currently used for, or in a way it is not currently used?	**No**
5. Does the process outlined in this document involve the use of new technology which might be perceived as being privacy intrusive? For example, the use of biometrics.	**No**
6. Will the process outlined in this document result in decisions being made or action taken against individuals in ways which can have a significant impact on them?	**No**
7. As part of the process outlined in this document, is the information about individuals of a kind particularly likely to raise privacy concerns or expectations? For examples, health records, criminal records or other information that people would consider to be particularly private.	**No**
8. Will the process require you to contact individuals in ways which they may find intrusive?	**No**

If the answer to any of these questions is 'Yes' please contact the Head of Data Privacy Tel: 0116 2950997 Mobile: 07825 947786
Lpt-dataprivacy@leicspart.secure.nhs.uk
In this case, ratification of a procedural document will not take place until approved by the Head of Data Privacy.

IG Manager approval name:	
Date of approval	

Acknowledgement: Princess Alexandra Hospital NHS Trust

Appendix 2

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Key individuals involved in developing the document

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