Suffolk and North East Essex

Potassium Permanganate Pathway

Version 1.0
June 2023

MEDICINES INFORMATION

Potassium permanganate is a chemical which, when diluted, works as a mild antiseptic and astringent (something that dries the skin). It is for external use only that can be obtained as a 'tablet', solution or crystals, for example Permitabs® or EN-Potab®. Potassium permanganate is safe when diluted appropriately and is used as a short-term therapy on the skin in accordance with medical instructions.

INDICATIONS FOR USE: Skin conditions commonly treated with potassium permanganate soaks include weeping or blistering conditions such as acute weeping/infected eczema and leg ulcers. If the skin is oozing and crusty, a wet soak may be advised.

British Association of Dermatologists 2023 https://www.bad.org.uk/pils/potassium-permanganate-solution-soaks/

IMPORTANT SAFETY INFORMATION

Potassium permanganate is for **external use only**. Oral ingestion can cause fatality due to local inflammatory reactions that block the airways or cause perforations of the gastrointestinal tract, or through toxicity and organ failure.

Potassium permanganate is subject to the requirements of Control of Substances Hazardous to Health including: separate storage, additional hazard labelling, and issue only to staff and patients who have been educated to understand its safe use.

ACCIDENTAL INGESTION SHOULD BE TREATED AS A MEDICAL EMERGENCY.

NHS Improvement Patient Safety Alert: Risk of death or serious harm from accidental ingestion of potassium permanganate preparations (December 2014)

STEP 1 ALTERNATIVE THERAPIES

All other therapies should be considered prior to commencing treatment of Potassium Permanganate. Local guidance and formularies should be referred to when managing skin conditions and lower limb to ensure a holistic approach is taken.

Onward referral maybe necessary to include, but not limited to:

Links:

- Wound care and Lower Limb Formularies for Suffolk and NEE

Contacts:

- Dermatology Clinic - Vascular Clinic - Tissue Viability Service - Lymphoedema Service - Podiatry Service - Diabetic Foot Clinic - Leg ulcer services/ specialist	➢ ESNEFT Tissue Viability Service: TissueViability.Srv@esneft.nhs.uk ➢ WSFT Tissue Viability wsh-tr.tissue-viability@nhs.net ➢ ESNEFT Ipswich and East Suffolk Lymphoedema Service: chu-ftr.lymphoedemaitrust@nhs.net ➢ West Suffolk Lymphoedema Service: wslymphservice@wsh.nhs.uk

STEP 2	ASSESSMENT

Initial considerations: Prior to commencing Potassium Permanganate the patient must be assessed by an appropriate specialist to establish if the treatment is appropriate. Patients who do **not** meet the referral criteria for a specific condition, should be referred directly to the Tissue Viability Service relevant to the patient's setting.

TREATMENT SHOULD NOT BE COMMENCED WITHOUT SPECIALIST OVERSIGHT.

Specialist Assessment: A risk assessment (e.g. *Oxford Health Risk Assessment) **must** be undertaken before prescribing and placed in the patients notes. The following considerations should be considered:

- Consider Potassium levels – Potential contraindication if patient has high potassium levels
- Patient and/or carer's capability if self-caring inc. mental and physical constraints
- Environmental factors inc. exposure to risk and social impacts
- The capacity and logistical constraints of the service providing the treatment. i.e. skill mix of staff, time to effectively perform the treatment
- Length and frequency of treatment
- Supply of treatment and follow up
- What would happen in an emergency i.e. would patient/carer/service be able to act appropriately on adverse reaction
- Disposal of Potassium Permanganate solution AND tablet

Where risks have been identified, appropriate measures must be applied to reduce/remove potential harm. If unable to meet these measures the treatment should not be commenced.

*Residential setting risk assessment: Oxford Potassium-Permanganate-Guidance-and-Risk-Assessment-.pdf (oxfordhealth.nhs.uk)

STEP 3	PRESCRIBING AND PREPARATION

CAUTIONS: The following cautions should be considered when prescribing and preparing Potassium Permanganate. The patient should be informed of the potential adverse reactions and the actions to take if occurs.

- This product should be prescribed for a named patient following recommendation and oversight from a specialist team such as Tissue Viability or Dermatology
- Check for allergies and sensitivities
- Irritant to mucous membranes
- Can stain clothing, skin and nails (especially with prolonged use).
- Can cause irritation, redness, pain and burns to the skin if not sufficiently diluted.
- Tablets should be handled wearing gloves.

PRESCRIBING AND DISPENSING	STORAGE	PREPARATION AND ADMINISTRATION
• Must not be placed on a patients' repeat prescription • Prescriptions to include clear instructions to dilute before use • Dispensing label to include the warning **'HARMFUL IF SWALLOWED'** • Prescriptions are only issued by an appropriate prescriber • Prescribe as **'Potassium Permanganate 0.01% topical solution'**	• Remove all stock supply (except for use within outpatient departments) and supply on a named patient basis only • Store in a safe place out of the reach of children or vulnerable adults. • Store in a place where they will not be mistaken for oral/internal medication, including the drug trolley for inpatient/care home settings. • In acute ward settings: always store in a locked treatment room on the ward away from the patient	• 1 tablet (400g) dissolved in 4 litres of water provides a 0.01% (1 in 10 000) solution. • Dilution should occur away from the patient • Neither the concentrated form nor the diluted form should be left near the patient. • Do not leave the diluted product unattended and dispose of it immediately after use. • Do not to supply more than 5-7 days at a time

• All patients must be supplied with a patient information leaflet • Prescription to include frequency and duration of administration		

DISPOSAL

Potassium Permanganate can be unsafe if handled inappropriately. The safe disposal of the solution AND tablet form is necessary to reduce potential harm to the environment.

If the patient/carer is self-caring, adequate information and support should be given on the appropriate disposal methods prior to commencing treatment. This may inc. how they can access a sharps bin or pharmacy if required.

- Dispose of unused/undissolved tablets in a sharp's container with a blue lid or return to a pharmacy for disposal.
- When disposing of potassium permanganate down a domestic drain or toilet - **dilute it to a very pale pink** colour to avoid environmental contamination (BAD, 2022). If pouring into a toilet flush and then flush again with the lid down to avoid aerosol inhalation. NOTE: Undissolved tablets do not flush and will badly stain the bottom of the pan.

Consider if a stock taking process is required within community settings.

https://www.oxfordhealth.nhs.uk/wp-content/uploads/2022/01/Potassium-Permanganate-Guidance-and-Risk-Assessment-.pdf

Resources and useful links

National Patient Safety Alert: Inadvertent oral administration of potassium permanganate April 2022
https://www.england.nhs.uk/wp-content/uploads/2022/04/NaPSA-Inadvertent-oral-administration-of-potassium-permanganate-April-2022.pdf

Patient Leaflets – Cardiff and Vale University board: See leaflets below.

How to store Permitabs® (potassium permanganate soak tablets)

Permitabs® must be:

- Kept out of the sight and reach of children.
- Stored in a cool, dry and well ventilated place. Protect from light.
- Kept away from combustible materials.
- In the original container. **DO NOT** mix the Permitabs® or the potassium permanganate soak with any other substances. The lid should always be replaced securely on the Permitabs® immediately after use.

What to do if the potassium permanganate is swallowed

If anyone accidentally swallows the Permitabs® (potassium permanganate tablets) or the soak, wash out the mouth thoroughly with water and give plenty of water to drink. Contact your nearest accident and emergency department immediately.

What to do if you get potassium permanganate in your eyes

Wash your eyes straight away with plenty of water for up to 15 minutes. Remove any contact lenses and open your eyes widely. Contact your nearest accident and emergency department immediately.

References

Alliance Pharmaceuticals Limited. (2012). Information leaflet - Permitabs® tablets for the preparation of external solutions. Alliance Pharmaceuticals Limited: Chippenham

Joint Formulary Committee. (2014) *British National Formulary*. 68th ed. London: BMJ Group and Pharmaceutical Press.

WARNINGS



Danger: Very harmful if swallowed.
Do not eat or drink when using this product.
Do not mix tablets or solution with other substances.



May intensify fire: Oxidiser.
Do not smoke when using this product.
Keep away from combustible materials.



Very toxic to aquatic life with long lasting effects.
Avoid release to the environment.
This material and its container must be disposed of as hazardous waste.

Do not touch or use Permitabs® if you are allergic to potassium permanganate.

Do not get the potassium permanganate soak near or in your eyes and avoid contact with the inside of the mouth, nose, ear, genitals, anus as it may cause irritation.

Do not eat, drink or smoke when using this product.

Patient Information Leaflet

How to Use Potassium Permanganate Soaks



GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol Caerdydd a'r Fro
Cardiff and Vale University Health Board

What are potassium permanganate soaks used to treat

Potassium permanganate is an antiseptic. It is used as a soak to cleanse and dry weeping skin conditions such as eczema and wounds.

How to prepare potassium permanganate soaks

The potassium permanganate soak will need to be made just before it is used. To prepare the soaks you will need the following:

- A bowl or bucket
- A clean bin liner
- Measuring jug
- A pair of disposable gloves
- Petroleum jelly (Vaseline®)
- Cold/tepid water
- Paper towels
- Permitabs® (potassium permanganate soak tablets) – purple, flat-sided pellets that are shaped like tablets. **DO NOT** put in mouth.



WARNING!

Permitabs® (potassium permanganate soak tablets) are for external use only. **DO NOT** put in mouth. Permitabs® (potassium permanganate soak tablets) are harmful if swallowed.

Prepare the soak using the following method:

1. Line a bowl or bucket with a clean bin liner to prevent the potassium permanganate from staining the container.
2. Using a measuring jug, measure 4 litres of cold/tepid water and pour into the lined bowl/bucket.



3. Put on disposable gloves to prevent staining of the skin.
4. Open and remove **ONE** Permitabs® from the container. Replace the lid securely on the pot of Permitabs.
5. Add the **ONE** Permitabs® to the lined bowl/bucket of water.



6. With the gloved hand, agitate the water to dissolve the tablet. The tablet will take a few minutes to dissolve. The water will turn a rose wine colour.



7. Do not use the potassium permanganate soak if it is cloudy or has turned brown in colour. Dispose of the brown soak as described in the section "How to dispose potassium permanganate soaks" and prepare the solution again.

How to use potassium permanganate soaks

1. Prepare the potassium permanganate soak immediately before use as described in the section "How to prepare potassium permanganate soaks."
2. If you are soaking your hands or feet, apply petroleum jelly to your nails to prevent the potassium permanganate soak from straining.



3. Soak the affected area of skin in the solution for 15 minutes. Take care not to splash the potassium permanganate soak on clothes, furniture or flooring as it stains.
4. Remove the affected area from the soak. Take off any excess solution and pat dry with a paper towel.



5. Apply your prescribed cream or dressing.
6. The duration of your treatment will be determined by your doctor or nurse. If you notice that your skin becomes dry and/or irritated, contact your doctor or nurse for advice.

How to dispose potassium permanganate soaks?

The used potassium permanganate soaks should be disposed of down an outside drain and the bowl/bucket cleaned immediately. **DO NOT** dispose of the used potassium permanganate soak down the toilet, sinks or bath because it stains ceramics.

Any unused Permitabs® should be returned to your local pharmacy for disposal.

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Cardiff and Vale University Health Board

POTASSIUM PERMANGANATE SOLUTION

PATIENT INFORMATION LEAFLET

The aim of this leaflet is to give you information about Potassium Permanganate Solution.

What is Potassium Permanganate Solution?
Potassium Permanganate Solution is a mild antiseptic and drying agent which can be used on weeping and infected areas of the skin. It can be used as a soak for treating small areas such as hands, feet or legs

You can make the solution by dissolving either Potassium Permanganate crystals or Potassium Permanganate tablets called "Permitabs".

How to I dissolve Potassium Permanganate tablets, "Permitabs"?
Place one tablet into an old jug and add 500ml of tepid water. Stir until the tablet dissolves and you will have a pale pink "rose" coloured liquid, Potassium Permanganate solution.

For use as a soak
Pour a small amount of purple liquid (Potassium Permanganate solution) into a lined bucket containing warm water until the water turns pale pink, rose coloured

- Soak legs in a lined bucket for approximately ten minutes
- The course of treatment is usually daily for two weeks.

After soaking, rinse legs to remove any traces of the solution dry with an old soft towel, please be aware this may become stained.

Important
- Keep Permitabs out of reach of children
- If swallowed seek medical advice immediately
- When Potassium Permanganate Permitabs are diluted and used as described they are entirely safe
- Always use a jug or similar item for dilution. Do not put Permitabs directly into a bath or basin as this can leave permanent staining
- Always dissolve Permitabs correctly : the final solution should be pale pink. You do not gain any extra benefit from a stronger/darker solution – only staining of both skin and utensils
- Staining of the skin and nails usually fades
- Keep away from furniture and clothes as this may cause permanent staining