

Standard Operating Procedure for the use of Potassium Permanganate soaks.

Name of SoP

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| Version: | V3 |
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| Name of executive lead: | Sue Murphy |
| Date ratified: | Nov 2024 |
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| To be read in conjunction with | Patient information leaflet & Risk Assessment |

Applicable to

Applicable to the community nurses and the patients who need to use potassium permanganate soaks in their homes to soak legs – to prevent damage to property and safe application of the procedure.

Executive Summary

To ensure the safety of patients and staff. Contact with Permitabs® tablets can cause burning of the skin and ingestion can cause death. Nursing staff should follow the instructions for dilution, application, and disposal carefully. Used for patients with wet weeping legs.

The formulations of potassium permanganate (concentrate) looks like an oral tablet or juice drink but can be fatal if ingested orally, due to local inflammatory reactions block the airways or cause perforations of the gastrointestinal tract, and can also cause death through toxicity and organ failure.

If community staff has been asked to administer the treatment, they should confirm that potassium permanganate (concentrate) can be safely stored on their first visit. See risk assessment sheet.

**If deemed unsafe to store**:

Patient mustnot be supplied with a prescription for potassium permanganate (concentrate) and a review undertaken to assess the need for ongoing treatment. If benefit outweighs risk; then need to consider all actions to mitigate identified risk.

The GP practice may need to liaise with community nursing to communicate identified risk and agree mitigating actions to ensure treatment can be administered safely.

Implementation

**Prescription:**

Potassium permanganate must be prescribed (either handwritten or via an electronic prescribing system) as ‘0.01% potassium permanganate SOAK’, the route should be clearly defined as topical and, on electronic prescribing systems, a warning should be added stating ‘For topical use only, must be diluted before use – POTENTIALLY FATAL IF SWALLOWED’ or HARMFUL IF SWALLOWED. This will be on the dispensing label.

Clinicians should also ensure that patients are not on repeat prescriptions for PP.

A duration of treatment should be added to the prescription.

1:10,000 which equates to 1 permitab® tablet disolved in 4 litres water (BNF,2017/2018 74). The prescriber or registered nurse caring for the patient should review the patient after 5 days of treatment. All treatments must be documented as “Potassium Permanganate soaks” on EMIS and on the prescription chart.

**Dilution**

The nurse preparing the solution should wear gloves, eye protection and an apron at all times as the solution causes burning and staining to skin, clothing and equipment.

Take care of the patients property as the solution will stain carpets and furnishings permanently.

1. Place one Permitab® in an empty sterile specimen pot and fill with 20mls of hand-hot water. Replace the lid securely. Use all the Permitab do not cut.
2. Shake the pot repeatedly until the tablet has dissolved. This can take about 10 minutes.
3. Line the bucket with a plastic waste bag as potassium permanganate causes staining of containers.
4. Fill a lined bowl or bucket with **4** litres of warm water.
5. Pour the contents of the specimen pot into the lined bowl or bucket.
6. Add more water to the tablet in the specimen pot if there is any portion of the tablet left un-used and shake repeatedly until dissolved. Add this solution to the **4** litres of solution.
7. Dispose of the specimen pot in waste.
8. The 1:10,000 solution should be transparent rose pink/purple or claret coloured.

**Application**

1. Smear Vaseline/yellow soft paraffin on all nails that will be in contact with the solution or paint nails with nail varnish.
2. The patient should place the affected limb(s) in the bucket.
3. If the solution does not reach above the area to be treated the patient/nurse should irrigate the area with the solution or use a syringe or gauze to irrigate the PP over the area needing to be treated.
4. Immerse the area for 10-15 minutes.
5. Use clean water to remove the solution from the skin, using an emollient as a soap substitute if required.

**Do not use any soap as it may react with the potassium permanganate and give off an unpleasant odour.**

1. Check the skin for irritant reactions immediately after treatment.
2. Review daily and stop treatment after 5 days. A medical or specialist review may be required if Identified improvement has not taken place.
3. Please contact the wound care service for advice or if no improvement telephone 01179449733 or email sirona.wcs@nhs.net. If initiated by dermatology, please contact dermatology service telephone 01179449782.

**Storage**

1. Provide patient with an information leaflet.
2. Keep out of site and reach of children, pets, and vulnerable patients.
3. Store in a cool, dry, well-ventilated place, in securely closed original container.
4. Store away from sources of heat or ignition.

**Disposal**

1. The solution can be disposed of via the household drain or
2. Dispose of solution in the toilet. The dilute solution should not stain the toilet.
3. Flush the toilet twice.
4. Dispose of the specimen pot.
5. NB. Potassium Permanganate is very toxic to aquatic organisms and should not be allowed to enter the drinking water supply, or soil.

On completion of treatment any remaining tablets must be returned to community pharmacy for safe disposal. Always make sure all relevant actions are documented.

**References**

1. NHS England. Patient Safety Alert - [Risk of death or serious harm from accidental ingestion of potassium permanganate preparations](https://www.england.nhs.uk/wp-content/uploads/2014/12/psa-potass-prmangant.pdf). 22 December 2017.
2. British Association of Dermatology. [How to use potassium permanganate soaks](https://www.bad.org.uk/patient-information-leaflets/potassium-permanganate-solution-soaks/?showmore=1&returnlink=https%3A%2F%2Fwww.bad.org.uk%2Fpatient-information-leaflets#.YFSlINpxeUk). April 2022 ( accessed 23/10/24).
3. British National Formulary (online) Available from: [Potassium permanganate | Drugs | BNF | NICE](https://bnf.nice.org.uk/drugs/potassium-permanganate/)
4. NPSA, 2022.Inadvertant oral administration of Potassium Permanganate (online).

Available from: [NHS England » National Patient Safety Alert – Inadvertent oral administration of potassium permanganate](https://www.england.nhs.uk/publication/national-patient-safety-alert-inadvertent-oral-administration-of-potassium-permanganate/) accessed 23/10/24

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**POTASSSIUM PERMANGANATE SOLOUTION**

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 Potassium Permanganate tablets called “Permitabs”.

Apply Vaseline or sort yellow paraffin to nails or paint with nail varnish

**How to dissolve Potassium Permanganate tablets, “permitabs”**

Place one Permitab® in an empty sterile specimen pot and fill with 20mls of hand hot water. Replace the lid securely. Use all the Permitab do not cut.

**For use as a soak- not to be swallowed**

Pour all purple liquid (Potassium Permanganate solution) into a lined bucket containing warm water until the water turns pale pink, rose coloured (about 4 litres)

* Soak legs in a lined bucket for approximately 10 to 15 minutes
* The course of treatment is usually daily for maximum of two weeks, minimum of 5 days

After soaking, rinse legs to remove any traces of the solution dry with an old soft towel, please be aware this may become stained. Use an emollient to wash after the PP (Potassium Permanganate soaks)

**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. 4 litres of warm water – 1 permitab.
* Staining of the skin and nails usually fades, use Vaseline on nails to reduce the staining of the PP.
* Keep from furniture and clothes as this may cause permanent staining.
* Dispose of solution into the toilet and flush toilet twice or outside drain.

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| Potassium Permanganate Risk Assessment  Patients name……………………..DOB…………….. | Yes/No (if no, refer to box below to add comments) |
| Is the patient able to self-manage, or can the carer undertake PP soaks |  |
| The patient/carer can, and will, store PP concentrate safely in the patient’s Home, out of reach of children or vulnerable adults, and separately to other oral medication. |  |
| The patient has the cognitive ability and visual acuity to self-manage and prepare the dilution, with no risk of inadvertent swallowing of PP concentrate by the patient, a member of the family or regular visitor to the patient’s home. |  |
| The patient, or carer, can dispose of the diluted solution safely and return any excess PP concentrate to their local pharmacy. |  |

If no to any of the questions above, comment in box

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If the patient cannot self-manage (or no carer), but can store safely:

* Then a safe place will need to be identified in the home.
* If deemed unsafe to store/impaired cognition and/ or vision:
* Then PP should not be prescribed.
* A locked cupboard can be considered or provide treatment in another environment.

Risk Assessment completed by…………………………….Signature…………………….Date ……………………

Patient/carer/representative Agreement:

I ……………………………………………(Patient/carer name)understand the information given to me and agree to store safely and handle PP in a way described above.

Signature…………………………………………………………. Date ……………………………………………………

Version Control

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| Version | Updated  By | Updated  On | Summary of changes from previous version |
| 2 | Gail Powell | June 2021 | Addition of not to be swallowed, Prescription details and references. |
| 3 | Gail Powell | Nov 2024 | Potassium Permanganate Patient risk assessment.  Updated references and prescribing Info |
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