Potassium Permanganate for topical use - Full Clinical Guideline

Reference no.: CG-CLIN/4098/22

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1. Introduction

Potassium permanganate is occasionally used in the NHS as a dilute solution to treat weeping and blistering skin conditions

Supplied in concentrated forms, usually as a ‘tablet’, it requires dilution before it is used as a soak (topical solution / cutaneous solution). Only prescribed by dermatologists.

These concentrated forms resemble an oral tablet and, if ingested, are highly toxic.

National patient safety alerts published in both 2014 and 2022 have created specific requirements for the prescribing, dispensing & labelling, handling (clinical areas). All use in a home setting following discharge or outpatient consultation, requires documented risk assessment.

2. Aim and Purpose

- Define a framework for prescribing potassium permanganate at UHDB, which is fully aligned with the national safety alert (2022) and the BAD guidelines (2022).
- Define a framework for pharmacy staff (clinical, dispensary and logistics) to follow when managing potassium permanganate stock or prescriptions.

3. Definitions, Keywords

BAD	British Association of Dermatologists
JAPC	Joint Area Prescribing Committee (Derbyshire)
Permitab®	A brand name for potassium permanganate tablets used for the preparation of a solution for use on the skin.
Potassium permanganate	A chemical which is not licensed as a medicinal product in the UK but which is available commercially to treat skin conditions.
ePMA / EP	Abbreviations used for electronic prescribing systems which, at UHDB, include Meditech v6 and Lorenzo at time of publication.

4. Potassium Permanganate Guidelines

4.1 Prescribing Guidance

Potassium permanganate has a RED traffic light classification in Derbyshire (JAPC) and Staffordshire. It is to be fully managed by a secondary care specialist and cannot be prescribed or continued by GPs or non-specialists. Prescribing and risk management remains the responsibility of the specialist prescriber in agreement with the patient/carers.

4.1.1 Prescribers who do NOT work within dermatology (all grades)

- All patients who may benefit from potassium permanganate should be referred to dermatology prior to commencing therapy.
- The decision to prescribe potassium permanganate must be made by a dermatology consultant/registrar.
- The dermatology team should prescribe themselves (requesting the derm registrar support this if the consultants do not have ePMA access).

However, providing the decision is clearly documented, the dermatologist may request that an inpatient medical team complete a prescription if they – or a dermatology colleague - cannot access the ePrescribing systems. **In this scenario the dermatologist should refer the non-specialist prescriber to section 4.1.3 to follow the prescribing requirements.**

4.1.2 Tissue Viability recommending potassium permanganate

As above, the TV specialists should ensure all prospective patients are discussed with dermatology and prescribing is authorised (+/- risk assessment for discharge continuation) before making any recommendations to other medical teams or prescribers.

4.1.3 Prescribing Potassium Permanganate solution (Dermatology recommendation only)

USE ePMA when possible as order templates and additional comments are pre-populated to support the safety requirements below.

Outpatients

Outpatients	Prescribe as:	Notes:
Dermatology Prescribers only All patients require Risk Assessment prior to prescribing (example RA in appendix 1 of full guideline) Document risk assessment and decision in notes	*Potassium Permanganate 0.01% topical solution* Add frequency (e.g. once per day) and course length Add soak duration and any other directions to follow e.g. applied after or applied to dressings etc **Annotate with:** *Risk Assessment complete** *To prepare a 0.01% topical solution: Dilute one tablet (400mg) in 4 litres of water.*	Prescribe in whole pack quantities (30 tabs per pack) Supply a BAD Patient Information Leaflet & counsel patient Patients who require District Nurse or formal carer support post-discharge – Derm service to liaise directly to with DN service or carers to discuss feasibility and any additional risks in the home/care setting

*Pharmacy will not be able to process any outpatient or discharge prescription without confirming the specialist has completed a risk assessment

Example prescription: *Rx: Potassium Permanganate 0.01% topical solution*

Apply the dilute solution to weeping area of left leg every day for 30 days.

To prepare a 0.01% topical solution: Dilute one tablet (400mg) in 4 litres of water. (RA complete)

Inpatients (electronic prescribing systems)

Inpatients	Prescribe inpatient prescription as:	Is patient for discharge on potassium permanganate?
Dermatology should prescribe directly in to the ePrescribing system (for consultants without EP access, request a derm registrar supports or support non-derm prescriber to follow requirements in this guideline)	*Potassium Permanganate 0.01% topical solution* Default order in ePMA is for once daily at 10am (intentionally scheduled outside of routine drug round times). Prescriber can then further annotate with any soak duration / anatomical areas / dressing requirements. Using this default template will ensure pre-populated directions are included in the system. Default administration directions in the system are: To prepare a 0.01% solution: Dilute one tablet (400mg) in 4 litres of water. Default additional comments state: *Dermatology must complete BAD risk assessment for outpatient and discharge prescriptions.*	Complete risk assessment (RA). Document risk assessment in notes with decision (see example RA in appendix 1 of full guideline) Liaise with ward prescriber to ask them to add the inpatient item to discharge medications including duration/follow up plan. They can update prescription/TTO to confirm RA complete by dermatologist so that pharmacy can provide discharge supplies. If needs DN support post discharge, speak to nurse in charge to ensure this is included in discharge referral planning.

4.2 Pharmacy Guidance

4.2.1 Reviewing prescriptions for potassium permanganate

	Requirement prior to clinically screening (verification)	**Resolution if not clear**
Outpatient	The prescription must be from a dermatology specialist	If in doubt, contact prescriber to confirm.
	The prescription or accompanying information must confirm a risk assessment (RA) has been completed	Contact prescriber to confirm.
Inpatient	Medication must have been prescribed or recommended by dermatology	Check all notes/annotations on ePrescribing system or consult medical notes and prescriber to confirm. Note that other prescribers may occasionally be asked to prescribe on dermatology recommendation as per 4.1.1 of full guideline
Discharge	As above – must be prescribed/recommended by dermatology. CHECK there is an explicit plan from dermatology to continue at discharge. Course length should be defined or a plan in discharge letter for dermatology follow-up (note: GPs cannot continue).	As above
	The prescription, discharge letter or medical notes must confirm a risk assessment (RA) has been completed	If in doubt, request medical team to document this (they must liaise with dermatology if they are uncertain of the plan). Supplies of potassium permanganate should not be given to a patient at discharge until this is confirmed.

RA is based on British Association of Dermatologist guidance for potassium permanganate. See appendix 1 of full guideline for example.

4.2.2 Supplying/dispensing potassium permanganate [All hospital pharmacies and contracted outpatient dispensing services]

Stock supplies

- Only dermatology clinic (FNCH) are to hold this product as stock. Any future stock requests must be discussed with the UHDB Medication Safety Officer.

Dispensing & Checking named-patient supplies

- The prescription / order must clarify that a risk assessment (RA) is complete **if** the product is to leave the hospital (Outpatient or Discharge/TTO)
- Dispense in original containers
- Use flag labels where necessary to avoid covering essential information on the primary packaging
- **For Inpatients & Discharge**: Always place the product in the red bag 'WARNING – FOR EXTERNAL USE ONLY' (image in appendix 2). This is essential to support nursing teams across the trust in storing the product safely in accordance with actions in the national alert (2022).
- Provide a patient information leaflet with each supply [British Association of Dermatologists (bad.org.uk)]

5. References

1) NHSI/BAD. Inadvertent oral administration of potassium permanganate. (NatPSA/2022/003/NHSPS). April 2022.
2) NHS England. Patient Safety Alert: Risk of death or serious harm from accidental ingestion of potassium permanganate preparations. 22 December 2014. www.england.nhs.uk/wp-content/uploads/2014/12/psa-potass-prmangant.pdf
3) The British Association of Dermatologists (BAD). Recommendations to minimise risk of harm from potassium permanganate soaks. Jan 2022 accessed 29/9/22 via British Association of Dermatologists (bad.org.uk)
4) BAD. Potassium Permanganate Solution Soaks – Patient Information Leaflet. April 2022 accessed 29/9/22 via British Association of Dermatologists (bad.org.uk)
5) Specialist Pharmacy Service. Using potassium permanganate for skin conditions or wound care. November 2021. https://www.sps.nhs.uk/articles/using-potassium-permanganate-for-skin-conditions-or-wound-care/

6. Documentation Controls

Reference Number CG-CLIN/4098/22	**Version:** 1.0.1		**Status** Final	
Version / Amendment History	Version	Date	Author	Reason
	1	Sept 22	Medicines Safety Officer	New Guideline for national safety alert
Intended Recipients: State who the Clinical Guideline is aimed at – staff groups etc.				
Training and Dissemination: How will you implement the Clinical Guideline, cascade the information and address training				
Development of Guideline: **Job Title:**				
Consultation with: Dermatology, Pharmacy, Medicines Safety Group, Formulary and Therapeutics lead pharmacist.				
Linked Documents: State the name(s) of any other relevant documents				
Keywords: Potassium | Permanganate | Risk Assessment | Permitab | EN-Potab | Dermatology				

Business Unit Sign Off	**Group: Medicines Safety Group** **Date: 04/10/22**
Divisional Sign Off (cross divisional as pharmacy & derm and referral may be rarely required from vascular/endocrine)	**Group:Trustwide CGG Dec 22** **Medicine Division -21/4/2023**
Date of Upload	April 2023
Review Date	April 2026
Contact for Review	This should match the author. if different please state who the contact is by Job Title

7. Appendices

Appendix 1 – Example Risk Assessment based on BAD recommendations

RISK ASSESSMENT (For use of potassium permanganate in patient's own home)

If a patient needs to receive potassium permanganate treatment in their own home, then a risk assessment MUST be undertaken by the most appropriate healthcare professional to ensure they can store and use potassium permanganate concentrate safely.

The healthcare professional may need to liaise with community healthcare colleagues (district nurses or carers and care homes) to ensure treatment can be managed. This should be done at the time of discharge from secondary care, or on initiation in a clinic setting.

Note that across Derbyshire/South Staffordshire, this product cannot be prescribed or continued by GPs. Dermatology specialists must risk assess and then initiate for discharge/outpatient use and arrange follow up and any repeat prescription requirements for the duration of therapy (RED traffic light classification on the Derbyshire formulary).

Before initiating potassium permanganate for outpatient/discharges, the following minimum risk assessment criteria requires 'YES' answers throughout:

1. Is the patient able to self-manage, or can a carer safely undertake, potassium permanganate soaks? YES / No

2.Can, and will, the patient /carer store potassium permanganate concentrate safely in the patient's home, out of reach of children or vulnerable adults, and separately to other oral medication. YES / No

STOP: If the patient cannot self-manage (and no suitable carer in their home), but can store safely: *Dermatology department need to liaise with community nursing colleagues to ensure continuity of treatment. Likewise patients in care homes will require a full discussion and agreement with care home managers/nursing leads.*

3. Does the patient have cognitive ability and visual acuity to self-manage and prepare the dilution, with no risk of inadvertent swallowing of potassium permanganate concentrate by patient, a family member or a regular visitor to the patient's home. YES / No

4. Can the patient dispose of the diluted solution safely* and return any excess potassium permanganate concentrate [Permitabs®/tablets] to their local pharmacy? YES / No

**see 'Waste' section of BAD recommendations if further information required.*

5. Have you counselled the patient / carer, provided a BAD Potassium Permanganate information leaflet, and agreed for treatment to continue in the patient residence?

YES / No

DECISION: If all answers above are 'YES' the product can be considered for initiation on discharge/outpatient prescription. Annotate prescriptions 'RA complete'

RA approved?

YES / No

Appendix 2 – Red Grip-Seal Bag [used on all UHDB supplies to inpatients including discharges]

WARNING

FOR EXTERNAL USE

Note for hospital Staff:

Keep this medicine in this bag throughout hospital admission

Store this bag with your **stock** external/topical medicines (clean utility)

Return to pharmacy when no longer required

OR contact pharmacy to relabel for discharge