Dear membership,

The MHRA central alerting system sent out an alert on 26 February 2021 regarding the discontinuation of morphine sulphate (MST Continus) prolonged release granules for oral suspension: <https://eu-west-1.protection.sophos.com?d=mhra.gov.uk&u=aHR0cHM6Ly93d3cuY2FzLm1ocmEuZ292LnVrL1ZpZXdhbmRBY2tub3dsZWRnbWVudC9WaWV3QWxlcnQuYXNweD9BbGVydElEPTEwMzE0Nw==&i=NWRmYTM5MDJmYTkwNzkwZGNjNDk0OTI1&t=ME5sSVhyUWJLOFU0UG9CSmhscXFMa3YraWowc2ZYQ0RoN2FhbXd2NThXTT0=&h=f62060a5ce174590abf7a7eba017d08e>

The reason for the withdrawal is that NAPP who manufacture this product are unable to source a key excipient.

MST granules are used extensively within the UK by many units. They have the benefit of allowing accurate dosing and being put through NG PEG tubes.

We have written to NAPP but they feel that they are unable to produce this product in the future (see attached).

We have written to WHO as this is within their list of essential drugs <https://eu-west-1.protection.sophos.com?d=who.int&u=aHR0cHM6Ly9hcHBzLndoby5pbnQvaXJpcy9iaXRzdHJlYW0vaGFuZGxlLzEwNjY1LzMyNTc3Mi9XSE8tTVZQLUVNUC1JQVUtMjAxOS4wNy1lbmcucGRmP3NlcXVlbmNlPTEmaXNBbGxvd2VkPXk=&i=NWRmYTM5MDJmYTkwNzkwZGNjNDk0OTI1&t=NHFycDNETUZaeHFrMzFQcjYydnpsdERZelJxRC90RnFTNnByTEh5L1BZcz0=&h=f62060a5ce174590abf7a7eba017d08e> but as yet have heard nothing further.

At this stage therefore there is little further we can do but give advice on other slow-release formulations that can be used and give advice around the precautions of trying to improvise incorrectly yourselves.

**Advice from NAPP**

Contents of **Zomorph®** capsules can be administered directly in semi-solid food (puree, jam, yoghurt) but should not be chewed or crushed. Alternatively, contents can be administered via gastric or gastrostomy tubes of a diameter of more than 16 F.G. with an open distal end or lateral pores, and tube rinsed with 30ml to 50ml of water. The Handbook of Drug Administration via Enteral Feeding Tubes suggests that the contents of Zomorph capsules can also be put down an 8Fr NG tube (unlicensed), however, the granules settle quickly in the syringe and care must be taken to deliver the complete dose. Please note: Zomorph capsules are a 12 hourly preparation and administered twice daily.

• MXL® capsules can be opened and the contents sprinkled on to soft cold food. Contents should not be chewed or crushed and cannot be administered down enteral feeding tubes as the granules in the capsules are highly lipophilic and will clump together when in contact with water or saline. Please note: MXL® capsules are a 24-hour preparation and administered once daily.

**Use of patches**

Both **buprenorphine and fentanyl patches** may be used to give slow-release opiates. It is critical for prescribers to be aware of the strengths of all the patches as well as the duration of use and when to change. If changing from long-term slow-release morphine to one of these patches you may also need to consider dose reduction associated with opioid rotation. If in doubt, please consult your nearest paediatric palliative care consultant or hospice medical director.

Buprenorphine patches are approximately equivalent to the following 24-hour doses of oral morphine

morphine salt 12 mg daily ≡ BuTrans® ‘5’ patch 7-day patches

morphine salt 24 mg daily ≡ BuTrans® ‘10’ patch 7-day patches

morphine salt 48 mg daily ≡ BuTrans® ‘20’ patch 7-day patches

morphine salt 84 mg daily ≡ Transtec® ‘35’ patch 4-day patches

morphine salt 126 mg daily ≡ Transtec® ‘52.5’ patch 4-day patches

morphine salt 168 mg daily ≡ Transtec® ‘70’ patch 4-day patches

72 hour Fentanyl patches are approximately equivalent to the following 24 hour doses of oral morphine

morphine salt 30 mg daily ≡ fentanyl ‘12’ patch

morphine salt 60 mg daily ≡ fentanyl ‘25’ patch

morphine salt 120 mg daily ≡ fentanyl ‘50’ patch

morphine salt 180 mg daily ≡ fentanyl ‘75’ patch

morphine salt 240 mg daily ≡ fentanyl ‘100’ patch

Patches are not suitable for unstable pain/ dose titration due to time to reach steady state.

Further information.

<https://eu-west-1.protection.sophos.com?d=appm.org.uk&u=aHR0cHM6Ly93d3cuYXBwbS5vcmcudWsvZ3VpZGVsaW5lcy1yZXNvdXJjZXMvYXBwbS1tYXN0ZXItZm9ybXVsYXJ5Lw==&i=NWRmYTM5MDJmYTkwNzkwZGNjNDk0OTI1&t=aVplaEhDVnlORGtGaHpZdHFHWlp3R3BWSVZjbk5wL0xFeHFLNy9ZWWRNZz0=&h=f62060a5ce174590abf7a7eba017d08e>

Best wishes.

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Dr Lynda Brook

Anita Aindow

Dr Emily Harrop

Dr Anna-karenia Anderson

On behalf of APPM Drug Formulary Group