

Supply Disruption Alert

SDA/2021/002

Issued: 03/02/2021

Valid until: 01/05/2021

Propofol emulsion for infusion and injection (all strengths)

Summary

- Due to the significant increase in demand for propofol to support the UK's COVID-19 response there are limited supplies of high volume propofol presentations, listed below, in the supply chain:
 - Propofol 1% 100ml vials;
 - Propofol 1% 50ml vials; and
 - Propofol 2% 50ml vials.
- Further deliveries are expected over the coming weeks, however intermittent supply issues across this range of propofol presentations and concentrations are likely to occur for several weeks.
- Propofol use should be prioritised for induction of anaesthesia, target-controlled infusion for procedural sedation, and critical care sedation. Use of total intravenous anaesthesia should be limited to patients for whom there is a clear indication (please see Supporting Information section for further detail).
- No supply problems with propofol 1% 20ml (amps/vials) are currently anticipated and sufficient stock of this presentation is available to support an uplift in demand from intensive care units due to shortages of the presentations listed above.
- Organisations may need to use low volume presentations of propofol (1% 20ml), or switch between different concentrations of high volume propofol, as listed above, depending on availability
- Organisations need to have processes and mitigations in place to enable safe switching between available preparations
- Trusts should continue to order a maximum of four days' supply in line with current national recommendations.
- This issue will continue to be closely managed at a national level. Further regional supply updates will be shared via Regional Pharmacy Procurement Specialists (RPPS) and National Pharmacy Procurement Leads in the Devolved Nations.

Action

Trust/hospital clinical teams working with pharmacy colleagues should:

- **review current prescribing practice** of propofol in all clinical areas;
- **take immediate action to conserve propofol** 1% (100ml and 50ml presentations) for use within critical care settings, induction of anaesthesia and target-controlled infusion for procedural sedation, for example, by switching to other agents (i.e. inhalational anaesthesia, unless contraindicated) for maintenance of anaesthesia in theatres;
- **prepare to switch between propofol presentations**, working with their local **Medication Safety Officer** to consider the safety and operational impact of using different concentrations and vial sizes and taking appropriate action to mitigate risks of mis-dosing by;
 - reviewing propofol availability and planning how to safely manage stock and reduce the risk of error when switching to a different presentation or strength of propofol;
 - considering changes needed to guidelines, prescribing systems and infusion pump libraries to support switching propofol presentations and being prepared to implement them;

- considering what local education is required to make sure switches are highlighted to staff at ward level;
- considering storing different concentrations separately; and
- **avoid switching to benzodiazepines**, such as midazolam, for sedation in critical care as this is clinically less appropriate (please see Supporting Information section) or switching to **alpha agonists**, such as clonidine or dexmedetomidine, as increased use may lead to supply pressures on these agents.

Local pharmacy teams should:

- **regularly review stock holding** and continue to order no more than four days stock in line with demand of their preferred presentation of propofol, which may necessitate ordering from a non-contracted supplier;
- **consider local management options** to decrease waste locally for example by only drawing up what will be used. Further guidance about this can be found on the SPS website which requires a login to access: <https://www.sps.nhs.uk/articles/minimising-wastage-of-critical-medicines-during-covid-19/> ;
- **work with in-house pharmacy aseptic units** to establish the feasibility of making 50ml pre-filled syringes from smaller volume propofol presentations if required.

Regional and National Procurement leads should:

- ensure trusts/hospitals and health boards are regularly reviewing local stock holding;
- work collaboratively with trust/hospitals and suppliers/distributors to challenge excessive orders;
- identify trusts and hospitals who have stock holding beyond actual demand and work with trusts to re-distribute this stock across their region; and
- support local stock sharing between trusts and hospitals where appropriate.

Deadlines for actions

Actions initiated: on receipt of this alert

Actions completed: 15/02/2021

Supporting Information

Additional information to support the review of local clinical practice and policies on the use of propofol in critical care and theatres provided by:

Professor Ramani Moonesinghe, National Clinical Director for Critical and Perioperative Care, NHSE England/NHS Improvement in consultation with the Royal College of Anaesthetists

- Propofol reduces length of stay in critical care compared with benzodiazepines such as midazolam. Benzodiazepines are also associated with complications such as delirium.
<https://evidence.nihr.ac.uk/alert/benzodiazepines-may-increase-length-of-stay-and-chance-of-delirium-in-intensive-care/>
- The evidence for benefit of total intravenous anaesthesia in patients having surgery is less compelling and high-quality evidence is limited to short-term symptom or efficiency benefits (e.g. faster recovery of consciousness, reduced postoperative nausea and vomiting).
- On balance, therefore, the aim of local policies should be to preserve propofol stocks for critical care sedation, induction of anaesthesia, and target-controlled sedation as there are no reasonable alternatives.
- The use of propofol for total intravenous anaesthesia should be limited to patients for whom there is a clear clinical rationale for not using inhalational anaesthesia. These would include patients in whom the use of inhalational agents might pose life-threatening risks (e.g. malignant hyperpyrexia), patients requiring intraoperative neurophysiological monitoring, or patients with a history of severe postoperative nausea and vomiting.

Patient safety resource

- Due to the use of various formulations and presentations of critical medicines that may be used during the COVID-19 outbreak, a poster has been created to highlight to clinical staff the importance of reading the product label. The poster can be found by following the link <https://www.sps.nhs.uk/articles/drug-packaging-and-labelling-during-covid-19-poster-and-screensaver-for-teams/>.

Distribution

Trusts (NHS boards in Scotland and Wales)

CAS and SABS (NI) liaison officers for onward distribution to all relevant staff including:

- A&E consultants
- A&E departments
- A&E directors
- A&E nurses
- Adult intensive care units
- Anaesthesia, directors of
- Anaesthetic medical staff
- Anaesthetic nursing staff
- Anaesthetists
- Cardiologists
- Cardiology departments
- Cardiology nurses
- Cardiology, directors of
- Cardiothoracic departments
- Cardiothoracic surgeons
- Cardiothoracic surgery directors
- Chief pharmacists
- Clinical governance leads
- Clinical Procurement Specialists
- District nurses
- Endoscopy units
- Hospital at home units
- Hospital pharmacies
- Hospital pharmacists
- Immunologists
- Intensive care medical staff/paediatrics
- Intensive care nursing staff (adult)
- Intensive care nursing staff (paediatric)
- Intensive care units
- Intensive care, directors of
- IV nurse specialists
- Intensive care, directors of
- Obstetricians
- Obstetrics and gynaecology departments
- Obstetrics and gynaecology directors
- Obstetrics departments
- Obstetrics nurses
- Paediatric intensive care units
- Paediatric medicine, directors of
- Palliative care teams
- Pharmaceutical advisors
- Pharmacists
- Purchasing managers
- Radiology departments
- Theatre managers
- Theatre nurses

Independent distribution

Establishments registered with the Care Quality Commission (CQC) (England only)

- Hospitals in the independent sector
- Independent treatment centres
- Nursing agencies
- Private medical practitioners

Enquiries

England

Enquiries from NHS Trusts in England should in the first instance be directed to your trust pharmacy team who will escalate issues to the Regional Pharmacy Procurement Specialist and national teams if required.

REGION	Full Name	Email
East Midlands	Andi Swain	andi.swain@nhs.net
East of England	James Kent	james.kent@southend.nhs.uk
London	Jackie Eastwood	jacqueline.eastwood@lpp.nhs.uk
North East	David Cook	david.cook20@nhs.net
North West	Glenn Harley	Glenn.Harley@liverpoolft.nhs.uk
South Central	Alison Ashman	Alison.Ashman@berkshire.nhs.uk
South East Coast	Richard Bateman	richard.bateman2@nhs.net
South West	Danny Palmer	Danny.Palmer@uhbw.nhs.uk
West Midlands	Diptyka Hart	Diptyka.Hart@uhb.nhs.uk
Yorkshire & Humber	David Allwood	davidallwood@nhs.net

Scotland

nss.nhssmedicineshortages@nhs.scot

Wales

MedicinesShortages@gov.wales

Northern Ireland

Noel.dunn@northerntrust.hscni.net

All other organisations should send enquiries about this notice to the DHSC Medicines Supply Team, quoting reference number **SDA/2021/002**

Email: DHSCmedicinesupplyteam@dhsc.gov.uk