

Making safe medicine choices during general anaesthesia and surgery in acute porphyria

General measures to take during the surgical period

Medicines listed as safe should preferably be used. However in a life-threatening situation no drug should be withheld from a patient with porphyria.

Fasting, stressful situations, pain and infection can trigger acute attacks in patients with acute porphyria, and measures to avoid these circumstances are advisable. General anaesthesia poses the greatest risk to people whose acute porphyria is or has been recently active. In addition to safe medicine choices for the anaesthesia itself, consideration should be given to the following to avoid provoking acute attacks:

- Ensuring effective pre and post-operative analgesia to minimise stress and pain from procedure.
- Ensuring any resulting infection(s) are treated aggressively to avoid post-operative porphyria complications.
- Ensuring patients avoid a pre and post-operative starvation fasting (this can be avoided by ensuring the patient receives intravenous glucose infusions until able to resume an adequate diet).

Choosing a medicine

The list below provides safe and unsafe medicine options in **acute porphyria** (acute intermittent porphyria, aminolevulinate dehydratase deficiency porphyria, hereditary coproporphyria, variegate porphyria). Unsafe options should usually be avoided, and a safe option chosen instead. However, in a life-threatening emergency no medicine should be avoided.

Most medicines are safe in **non-acute porphyria** (congenital erythropoietic porphyria, erythropoietic protoporphyria or porphyria cutanea tarda) but there are some exceptions. Read the article [What are the restrictions on prescribing for patients with non-acute porphyria?](#) for more information.

Induction agents

Safe

Propofol (clinical safety has not been assessed for continuous use of this preparation)

Unsafe (avoid)

Esketamine

Etomidate

Ketamine

Thiopental

Inhalation anaesthetics

Safe

Desflurane

Enflurane

Isoflurane

Nitrous oxide

Sevoflurane

Unsafe (avoid)

Halothane

Local anaesthetics

Safe

Bupivacaine

Levobupivacaine

Lidocaine (intravenous doses should be used with caution)

Mepivacaine

Ropivacaine

Neuromuscular blockers

Safe

Atracurium

Cisatracurium

Mivacurium

Pancuronium

Rocuronium

Suxamethonium (depolarising)

Vecuronium

Analgesics – opiates

Safe

Alfentanil

Diamorphine

Fentanyl

Morphine

Nalbuphine

Oxycodone

Pethidine

Remifentanil

Tramadol

Analgesics – NSAIDs

Safe

Aspirin

Celecoxib

Dexibuprofen

Dexketoprofen

Diclofenac

Etoricoxib

Ibuprofen

Indometacin

Ketoprofen

Ketorolac

Meloxicam

Nabumetone

Naproxen

Parecoxib

Piroxicam

Tenoxicam

Unsafe (avoid)

Aceclofenac

Sulindac

Analgesics - other

Safe

Paracetamol

Unsafe (avoid)

Pentazocine

Sedatives

Safe

Chlorpromazine

Diazepam

Lorazepam

Midazolam (clinical safety has not been assessed for continuous use of this preparation)

Perphenazine

Prochlorperazine

Temazepam

Triazolam

Trifluoperazine

Unsafe (avoid)

Flunitrazepam

Nitrazepam

Antiemetics

Safe

Cyclizine

Domperidone

Granisetron

Metoclopramide

Ondansetron

Prochlorperazine

Antihypotensives

Safe

Adrenaline (epinephrine)

Dopamine

Midodrine

Noradrenaline (norepinephrine)

Phenylephrine

Antibiotics – aminoglycosides

Safe

Amikacin

Gentamicin

Tobramycin

Antibiotics – carbapenems

Safe

Ertapenem

Imipenem

Meropenem

Meropenem with vaborbactam

Antibiotics – cephalosporins

Safe

Cefotaxime

Ceftazidime

Ceftriaxone

Cefuroxime

Antibiotics – glycopeptides

Safe

Teicoplanin

Vancomycin

Antibiotics – penicillins

Safe

Amoxicillin

Ampicillin

Benzylpenicillin

Co-amoxiclav

Co-Fluampicil (Conflicting safety advice for flucloxacillin. Consider an alternative in high-risk patients. Contact [UKPMIS](#) for further advice)

Flucloxacillin (Conflicting safety advice for flucloxacillin. Consider an alternative in high-risk patients. Contact [UKPMIS](#) for further advice)

Phenoxymethylpenicillin

Tazocin (piperacillin with tazobactam)

Unsafe (avoid)

Mecillinam

Pivmecillinam

Antibiotics – quinolones

Safe

Ciprofloxacin

Levofloxacin

Moxifloxacin

Ofloxacin

Antibiotics – other

Safe

Metronidazole

Unsafe (avoid)

Clindamycin

Cotrimoxazole

Erythromycin

Nitrofurantoin

Rifampicin

Sulfadiazine

Sulfamethoxazole

Trimethoprim

MRSA decolonisation

Safe

Mupirocin 2% Topical

Skinsan

Anticoagulants – parenteral

Safe

Dalteparin

Enoxaparin

Fondaparinux

Heparin

Tinzaparin

Reversal agents

Safe

Flumazenil

Naloxone

Neostigmine

Sugammadex

Antimuscarinics

Safe

Atropine

Glycopyrronium

Antiepileptics

Safe

Levetiracetam

Unsafe (avoid)

Phenytoin

Sodium valproate

Valproic acid

Miscellaneous

Safe

Chlorphenamine

Dexamethasone

Dobutamine

Electrolytes

Hydrocortisone

Magnesium

Tranexamic acid

Trometamol

Unsafe (avoid)

Hydralazine

Useful links

[British and Irish Porphyria Network \(BIPNET\)](#)

[British Porphyria Association](#)

[UK Porphyria Medicines Information Service \(UKPMIS\)](#)