

COMPATIBILITY INFORMATION FOR USE DURING COVID-19 PANDEMIC

Additional compatibility information is provided here for selected drugs likely to be used in the management of COVID-19 patients in intensive care units. Check the individual medicine monographs for information about preparation, stability and recommended concentrations.

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ALFENTANIL

In a syringe

Alfentanil in concentrations up to 500 microgram/mL is compatible with:

- midazolam up to 0.2 mg/mL for 24 hours (in sodium chloride 0.9%)
- midazolam up to 1.1 mg/mL for 12 hours (in sodium chloride 0.9%)
- propofol 1% (Diprivan brand only) for 6 hours¹

By Y-site

Alfentanil 250 microgram/mL is compatible with:

- midazolam 2.5 mg/mL for 3 hours²

Alfentanil 500 microgram/mL is compatible with:

- propofol 1% (Diprivan brand only) for one hour³

DEXMEDETOMIDINE

By Y-site

Dexmedetomidine 4 microgram/mL (in sodium chloride 0.9%) is compatible for 4 hours with:

- fentanyl 50 microgram/mL
- midazolam 2 mg/mL
- morphine sulfate 15 mg/mL
- propofol 1% (Diprivan brand only)³

FENTANYL

In a syringe

Fentanyl up to 2 microgram/mL is compatible with:

- propofol 1% (Diprivan brand only) for 90 minutes⁴

Fentanyl up to 30 microgram/mL is compatible with:

- midazolam up to 2.5 mg/mL for 24 hours (in sodium chloride 0.9%)⁴

Fentanyl up to 50 microgram/mL is compatible with:

- propofol 1% and 2% (Fresenius Kabi brand only) for 12 hours⁴

By Y-site

Fentanyl 25 microgram/mL is compatible with:

- midazolam 2.5 mg/mL for 3 hours²

Fentanyl 50 microgram/mL is compatible with:

- dexmedetomidine 4 microgram/mL (in sodium chloride 0.9%) for 4 hours
- propofol 1% (Diprivan brand only) for one hour³

MIDAZOLAM

In a syringe

Midazolam up to 0.2 mg/mL is compatible with:

- alfentanil up to 500 microgram/mL for 24 hours (in sodium chloride 0.9%)⁵

Midazolam up to 1.1 mg/mL is compatible with:

- alfentanil up to 500 microgram/mL for 12 hours (in sodium chloride 0.9%)⁵

Midazolam up to 2 mg/mL is compatible with:

- morphine sulfate up to 8 mg/mL for 24 hours (in sodium chloride 0.9%)⁵

Midazolam up to 2.5 mg/mL is compatible with:

- fentanyl up to 30 microgram/mL for 24 hours⁵

By Y-site

Midazolam 2 mg/mL is compatible for 4 hours with:

- dexmedetomidine 4 microgram/mL (in sodium chloride 0.9%)³

Midazolam 2.5 mg/mL is compatible for 3 hours with:

- alfentanil 250 microgram/mL
- fentanyl 25 microgram/mL
- morphine sulfate 4 mg/mL²

Do not mix midazolam with propofol. Variable compatibility has been reported and signs of incompatibility are difficult to detect visually. **Seek advice from a critical care specialist or medicines information service.**

MORPHINE

In a syringe

Morphine sulfate up to 8 mg/mL is compatible with:

- midazolam up to 2 mg/mL for 24 hours (in sodium chloride 0.9%)⁶

By Y-site

Morphine sulfate 4 mg/mL is compatible with:

- midazolam 2.5 mg/mL for 3 hours²

Morphine sulfate 15 mg/mL is compatible with:

- dexmedetomidine 4 microgram/mL (in sodium chloride 0.9%) for 4 hours³

Do not mix morphine sulfate with propofol. Variable compatibility has been reported and signs of incompatibility are difficult to detect visually. **Seek advice from a critical care specialist or medicines information service.**

PROPOFOL

In a syringe

Propofol 1% and 2% (Fresenius Kabi brand only) is compatible with:

- fentanyl up to 50 microgram/mL for 12 hours (in sodium chloride 0.9%)⁷

Propofol 1% (Diprivan brand only) is compatible with:

- alfentanil up to 500 microgram/mL for 6 hours
- fentanyl up to 2 microgram/mL for 90 minutes⁷

By Y-site

Propofol 1% (Diprivan brand only) is compatible with:

- alfentanil 500 microgram/mL for one hour
- dexmedetomidine 4 microgram/mL (in sodium chloride 0.9%) for 4 hours
- fentanyl 50 microgram/mL for one hour³

Do not mix propofol with midazolam or morphine. Variable compatibility has been reported and signs of incompatibility are difficult to detect visually. **Seek advice from a critical care specialist or medicines information service.**

REFERENCES

1. Resource: Alfentanil hydrochloride: syringe compatibility information for use during COVID-19 [April 2020]. Specialist Pharmacy Service [internet]. London: NHS Specialist Pharmacy Service. Available from www.sps.nhs.uk. Accessed 21/04/2020.
2. Trissel LA, Leissing NC. Trissel's Tables of physical compatibility. Lake Forest IL: Multimatrix; 1996.
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5. Resource: Midazolam hydrochloride: syringe compatibility information for use during COVID-19 [April 2020]. Specialist Pharmacy Service [internet]. London: NHS Specialist Pharmacy Service. Available from www.sps.nhs.uk. Accessed 21/04/2020.
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7. Resource: Propofol: syringe compatibility information for use during COVID-19 [April 2020]. Specialist Pharmacy Service [internet]. London: NHS Specialist Pharmacy Service. Available from www.sps.nhs.uk. Accessed 21/04/2020.