

## Early treatment of hospital onset COVID-19 in inpatients 70 years of age and older.

### Background

Evidence suggests that treatment with antivirals significantly improve clinical outcomes in patients with COVID-19 who are at high risk of progression to severe disease and/or death.

Welsh Government have taken the decision to widen the eligibility criteria for access to *nirmatrelvir-ritonavir* in line with the NICE guidance through a targeted extension to include **all people aged 70 years and over with hospital onset of COVID-19 symptoms who test positive for COVID-19 (NEW 2023)**

For early treatment of hospital-onset COVID-19 in [high risk](#) inpatients, See [here](#)  
For patients requiring Oxygen for COVID-19, See [here](#).

### Inclusion criteria

- Inpatients aged 70 years or over with hospital onset [COVID-19 symptoms](#) and COVID-19 confirmed by PCR or LFT testing without new oxygen requirement.

### Exclusion criteria

- Known hypersensitivity reaction to the active substances or to any of the excipients of the products as listed in the [Summary of Product Characteristics](#)
- Patients requiring Oxygen for COVID-19 (see [here](#) for guidance)
- Advanced decompensated liver cirrhosis
- Drug-drug interactions that would preclude Paxlovid® use (See [Liverpool COVID-19 interactions](#), or speak to Ward Pharmacist) – See 'drug interactions', below.

### Treatment

Treatment	Treatment window
Paxlovid® 300mg/100mg BD (PO) for 5 days <i>Contains nirmatrelvir plus ritonavir</i>	Start within 5 days of symptom onset <i>(this may be extended to 7 days if clinically indicated but prescribing will be off-label.)</i>

### Drug interactions

Paxlovid® has significant interactions and so the safety of treatment must be carefully considered using the [Liverpool interaction checker](#), and discussion with speciality teams as needed.

If an interaction is identified, please consider:

- Can concomitant medication(s) be temporarily discontinued?
- Can the dose of the concomitant medication(s) be reduced?
- Can an alternative concomitant medication be used?
- Can increased monitoring for adverse effects or concomitant medication drug levels be done?

For further advice – see the [Paxlovid decision aid](#) which contains additional advice on management of common *drug-drug* interactions. More information is available via the [Paxlovid SPC](#) and your Ward Pharmacist.

**IMPORTANT:** Paxlovid® has a risk of serious adverse reactions due to interactions with other medicinal products. These interactions may lead to:

- Clinically significant adverse reactions, potentially leading to severe, life-threatening or fatal events from greater exposures of concomitant medicinal products.
- Clinically significant adverse reactions from greater exposures of Paxlovid®
- Loss of therapeutic effect of Paxlovid® and possible development of viral resistance

Ensure that all potential interactions are carefully considered, seeking specialist advice as needed.

### Dosing in renal and hepatic impairment

eGFR greater than 60 mL/min	eGFR 30 to 60 mL/min	eGFR <30 mL/min including End Stage Renal Disease patients receiving Haemodialysis or Peritoneal Dialysis	Patients taking tacrolimus, ciclosporin or sirolimus (all levels of kidney function)
Normal dose Paxlovid® 300mg nirmatrelvir plus 100mg ritonavir BD	Reduce dose to 150mg nirmatrelvir plus 100mg ritonavir BD	Reduce dose to 150mg nirmatrelvir plus 100mg ritonavir BD	Paxlovid® prescribing contraindicated

### Prescribing Paxlovid®

Clinicians should assure themselves that patients are able to swallow the oral tablets. Paxlovid® is provided as separate tablets for each of the drug components, co-packaged in one container. To prevent administration errors it is important that the drug is prescribed clearly:

On the e-prescribing system, search for "Paxlovid" under the protocol tab.

When handwriting prescriptions for Paxlovid®:

- Prescribe in the finalised section (page 3) of the antimicrobial section of the inpatient medication chart so that 5 days administration is possible
- State the brand name (Paxlovid®) and generic name (Nirmatrelvir/ritonavir) of the drug
- State the dose in mg of Nirmatrelvir first followed by the mg dose of ritonavir.

A medication safety alert is available on COIN via this [link](#) and may be printed to alert nursing staff to the risk of errors. Example prescription of Paxlovid® 300mg/100mg twice a day:

FINALISED PRESCRIPTION		Antimicrobial – Finalised Prescription				Duration OR review date:		PRESCRIBER'S SIGNATURE		PHARMACIST		Discharge Prescription
Check for allergies		<b>Paxlovid</b>				<b>5 days</b>		<i>Dr.</i>				
DATE →	09/02	Indication				Rationale for Choice (circle)		Sleep No.		SUPPLY		TOTAL duration
ROUTE →	PO	<b>COVID-19</b>				[underline] /pro advice/C&S		XXXX				
SPECIFY TIME IF REQUIRED ↓	DOSE ↓	SIGN	DATE					Administration must follow the date line provided for EACH separate prescription				
		DOSE CHANGE ↓	DAY									
Morning	300mg / 100mg							Special Instructions				
Midday												
Evening												
Bedtime	300mg / 100mg											
Prescription will stop here unless you prescribe again												
<b>Nirmatrelvir and ritonavir</b>												

A missed dose should be taken as soon as possible and within 8 hours of the scheduled time, and the normal dosing schedule should be resumed. If more than 8 hours has elapsed, the missed dose should not be taken and the treatment should resume according to the normal dosing schedule.

If the patient requires hospital-based care due to severe or critical COVID-19 after starting treatment with Paxlovid®, the patient should complete the full 5-day treatment course at the discretion of their healthcare provider.

Patients should be advised of the possible gastro-intestinal side-effects of treatment with nirmatrelvir/ritonavir (e.g. nausea, vomiting). If such side-effects are experienced, anti-emetics should be considered that are not contra-indicated. If nirmatrelvir/ritonavir treatment cannot be tolerated, an alternative treatment can be considered within the options and criteria of this policy. Combination treatment should not be provided

## Pharmacy Supply

Paxlovid® will be available from pharmacy via the usual supply mechanisms. *Out of hours* requests should be sent to pharmacy on the next working day including weekends. Supply will not be available via the on-call services or emergency Omnicells.

## References

- [NICE TA878](#)
- Highest risk group definitions: [Higher-risk patients eligible for COVID-19 treatments: independent advisory group report \(March 2023\) - GOV.UK \(www.gov.uk\)](#)
- [Summary of product characteristics](#)