Reducing the risk of venous thromboembolism (VTE) in over 16s with COVID-19 pneumonia

NICE National Institute for Health and Care Excellence

Advanced respiratory support

- Invasive mechanical ventilation
- Bilevel positive airway pressure (BiPAP) via translaryngeal tube or tracheostomy
- Continuous positive airway pressure (CPAP) via translaryngeal tube
- Extracorporeal respiratory support

Community settings

Settings in which patients who would otherwise be admitted to hospital receive acute medical care provided by members of the hospital team, often working with the patient's GP team. They include 'hospital at home' services and COVID-19 'virtual wards'

Intermediate dose

For LMWH, double the standard prophylactic dose for acutely ill medical patients.

Note that intermediate-dose LMWH is off label, and LMWH, UFH and fondaparinux sodium are off label for patients under 18. See NICE's information on prescribing medicines

COVID-19 pneumonia treated in hospital

At hospital admission

- Assess bleeding risk using a risk assessment tool
- Start pharmacological VTE prophylaxis with low molecular weight heparin (LMWH) unless contraindicated. Use the standard prophylactic dose for acutely ill medical patients. For patients who cannot have LMWH, use fondaparinux sodium or unfractionated heparin (UFH)
- For patients at extremes of body weight or with impaired renal function, consider adjusting the dose of LMWH in line with the summary of product characteristics and locally agreed protocols
- Continue pharmacological VTE prophylaxis for the duration of the patient's hospital stay or 7 days, whichever is longer

If the patient is already having anticoagulation treatment for another condition, continue the current therapeutic dose unless contraindicated by a change in clinical circumstances. Consider switching to LMWH if the current anticoagulation is not LMWH and the patient's clinical condition deteriorates

During hospital stay

If the patient's clinical condition changes, assess risk of VTE, reassess bleeding risk and review pharmacological VTE prophylaxis

If the patient needs **advanced respiratory support**:

- consider increasing anticoagulation to an **intermediate dose**, taking account of body weight and renal function
- reassess VTE and bleeding risk daily

At discharge

Ensure that patients who will be completing pharmacological VTE prophylaxis after discharge are able to use it correctly or have someone available to help them

COVID-19 pneumonia treated in community settings

- Assess the risks of VTE and bleeding
- Consider pharmacological VTE prophylaxis, as for patients in hospital, if the risk of VTE outweighs the risk of bleeding

Research and data collection

- Offer patients the opportunity to take part in ongoing clinical trials for COVID-19
- Organisations should collect and regularly review information on bleeding and other adverse events in patients with COVID-19 pneumonia who are given intermediate doses of anticoagulation

This is a summary of the recommendations in NICE's COVID-19 rapid guideline on reducing the risk of venous thromboembolism in over 16s.