Guidance on oxygen use in adults

By Kimberley Hackett

Essential facts
Oxygen is one of the most commonly used drugs in emergency medicine and before publication of the first British Thoracic Society (BTS) 2008 guideline, emergency departments and ambulance services gave oxygen to almost all breathless or seriously ill patients.

The 2015 BTS Emergency Oxygen Audit Report found that one in seven of the 35,000 patients in UK hospitals at the time of the audit received oxygen therapy for their conditions. Of these patients, four in ten were receiving oxygen without prescriptions or written orders.

Oxygen should be administered by staff who are properly trained. However, half of hospitals do not provide sufficient training for doctors and nurses in oxygen provision and monitoring.

Oxygen has often been thought of as a treatment for breathlessness, but it is for hypoxaemia. In non-hypoxaemic patients, oxygen has no consistent effect on the sensation of breathlessness. In some patients, such as those with chronic obstructive pulmonary disease, too much oxygen may be harmful as it can lead to increased carbon dioxide levels.

The under- and overuse of oxygen has led to occasional deaths, according to the BTS. The 2015 BTS audit revealed that 85% of hospitals in the UK had implemented an oxygen policy, 100% used pulse oximeters to measure patients’ oxygen levels on all nursing observation rounds and 72% recorded patients’ oxygen levels in dedicated sections of monitoring charts, consistent with BTS guidelines.

What’s new?
The BTS has released an updated guideline on oxygen use in adults in healthcare and emergency settings. The society is seeking to encourage healthcare professionals across the NHS and beyond to adopt the latest version.

The update is based on new evidence about the role of effective prescribing and delivery of emergency oxygen in improving health and saving lives. Endorsed by more than 20 organisations, including the RCN, the guide advises that a target range of oxygen in the blood should be prescribed for all hospital patients at the time of admission and written on their drug chart.

How you can help your patient
The BTS states that nurses should:
» Document when oxygen has been started and the flow.
» Ensure the target rate is achieved quickly.
» Titrator to keep in range.
» Sign the drug chart every drug round.
» Monitor at least every four hours.
» Record target saturation range and wean off oxygen if the patient is clinically stable.
» Complete and initial the observation chart.

Kimberley Hackett is an assistant editor at RCNi

Find out more
British Thoracic Society
Guideline for Oxygen Use in Adults in Healthcare and Emergency Settings
tinyurl.com/y7prxq55
Guideline for Oxygen Use in Adults in Healthcare and Emergency Settings: Key Messages for Nurses and Professions Allied to Medicine
tinyurl.com/yvbbqqw2
tinyurl.com/y7nwf2tj

EXPERT COMMENT

‘Oxygen is an important drug and should always be prescribed and monitored like any other medication. It is beneficial to many patients, but can be harmful if misused. We urge nurses to adopt the updated BTS guideline so emergency oxygen is always used in an optimal and safe way.

‘The core of the updated guideline remains the principle of targeted oxygen therapy, with a target range of 94-98% for most patients and a target range of 88-92% for those at risk of hypercapnia.

‘There is compelling new evidence of harm from giving too much oxygen. ‘A recent BTS study showed that around 6,000 UK hospital patients a day were receiving oxygen without prescription.

‘In emergencies, oxygen should be initiated immediately, using the guideline principles, and a prescription written as soon as possible. Nurses should not accept their patients continuing on oxygen without prescription.’

Ronan O’Driscoll
is consultant respiratory physician at Salford Royal NHS Foundation Trust, and first author of the BTS Guideline for Oxygen Use in Adults in Healthcare and Emergency Settings.