New guidance on oxygen use in adults

By Kimberley Hackett

Essential facts
The 2015 British Thoracic Society (BTS) emergency oxygen audit report found one in seven of the 55,000 patients in UK hospitals at the time of the audit received oxygen therapy for their condition. Of these, 40% were receiving oxygen without a prescription or written order.

Correct training in oxygen provision has also been a concern, as more than 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, when in fact it is for hypoxaemia. In non-hypoxaemic patients, oxygen has not been shown to have any consistent effect on the sensation of breathlessness.

In some vulnerable patients – such as those with chronic obstructive pulmonary disease, too much oxygen may be harmful as it can lead to increased carbon dioxide levels. Under- and overuse of oxygen has led to occasional deaths, according to the BTS.

What’s new?
The BTS has released an updated guideline on oxygen use in adults in healthcare and emergency settings, based on new evidence detailing the role of effective prescribing and delivery of emergency oxygen in improving health and saving lives.

Endorsed by 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
Oxygen should be administered by staff who are properly trained. The BTS states that nurses should:

- Document when oxygen has been started, and the flow.
- Ensure the target rate is achieved quickly.
- Titrate 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 assistant editor, RCNi

Find out more
British Thoracic Society
Guideline for Oxygen Use in Adults in Healthcare and Emergency Settings (2017)
tinyurl.com/BTS-oxygen-use
Guideline for Oxygen Use in Adults in Healthcare and Emergency Settings: Key Messages for Nurses and Professions Allied to Medicine (2017)
tinyurl.com/BTS-nurses
Emergency Oxygen Audit Report: National Audit Period: 15 August to 1 November 2015
tinyurl.com/BTS-oxygen-audit
RCNI article
Redesigning a home oxygen assessment and review service (Nursing Standard, 2015)
rcni.com/oxygen-review

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

‘The core of the 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.

‘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 a consultant respiratory physician and British Thoracic Society guideline author