COPD–OSAHS overlap syndrome: investigations and treatment

Priority factors for rapid assessment

- severe hypercapnia $PaCO_2$ > 7 kPa when awake
- hypoxaemia (<94% on air)
- acute ventilatory failure
- vocational driving or vigilance-critical job
- unstable cardiovascular disease
- pregnancy
- preoperative assessment for major surgery
- non-arteritic anterior ischaemic optic neuropathy

Diagnosis

- Measure arterial blood gas when awake to assess for ventilatory failure. Do not delay treatment for acute ventilatory failure for further investigations
- Offer spirometry if COPD severity is not already determined
- Offer home or hospital respiratory polygraphy
- Consider transcutaneous CO_2 monitoring with respiratory polygraphy to guide treatment

OSAHS and nocturnal hypoventilation excluded

Follow NICE's guideline on COPD

OSAHS confirmed
No severe hypercapnia
$PaCO_2$ ≤ 7 kPa

- Discuss lifestyle changes tailored to the person's needs
- Give information on COPD-OSAHS overlap syndrome, including the treatments available and choosing the best treatment for the person

Consider CPAP

Consider heated humidification for upper airway side effects, such as nasal and mouth dryness, and CPAP-induced rhinitis

OSAHS and nocturnal hypoventilation confirmed
Severe hypercapnia
$PaCO_2$ > 7 kPa

- Discuss lifestyle changes tailored to the person's needs
- Give information on COPD-OSAHS overlap syndrome, including the treatments available and choosing the best treatment for the person

Consider NIV

Rhinitis

Assess people with nasal congestion for rhinitis and treat if confirmed (for details, see the guideline)

Changing from nasal to orofacial masks and adding humidification can help with CPAP tolerance

Monitoring and support (for further details, see the guideline)

- Monitor and optimise therapy with CPAP and NIV
- Tailor follow-up to the person and offer face-to-face, video or phone consultations with telemonitoring data, if available
- Ensure follow-up is in line with DVLA guidance on assessing fitness to drive
- Offer access to a sleep and ventilation service for CPAP and NIV users for advice, support and equipment
- Offer educational or supportive interventions by trained specialists to improve adherence

Supplemental oxygen

- Consider supplemental oxygen if hypoxaemia persists despite optimised CPAP or NIV, and address any additional underlying causes of hypoxaemia where possible
- Review if oxygen is still needed after treatment with CPAP or NIV has been optimised

Consider stopping CPAP or NIV and using a symptom-management approach for severe COPD if symptoms or quality of life do not improve, or CPAP or NIV add to the burden of therapy

Published date: August 2021. This is a summary of the advice on COPD-OSAHS overlap syndrome investigation and treatment in NICE's guideline on obstructive sleep apnoea-hypopnoea syndrome and obesity hypoventilation syndrome.
For recommendations on the diagnosis and management of COPD see the NICE guidelines on chronic obstructive pulmonary disease in over 16s, chronic obstructive pulmonary disease (acute exacerbation): antimicrobial prescribing and community-based care of patients with COPD during the COVID-19 pandemic