Chronic respiratory failure in Becker muscular dystrophy may present without the usual signs of respiratory distress. Subtle signs include early morning headaches, fatigue, daytime sleepiness, reduced appetite and weight loss. Consider underlying respiratory failure in case of a chest infection.

If supplemental oxygen is required during a respiratory crisis, this must be carefully controlled. Healthcare professionals must be alert to the possibility of acute respiratory failure with an arterial blood gas assessment of oxygen, carbon dioxide and bicarbonate concentration. Non-invasive ventilation, with oxygen entrained, may be required.

Assisted coughing with chest physiotherapy and breath-stacking techniques with an AMBU bag help to clear lower airways secretions. This can also be facilitated by a cough assist device.
Becker muscular dystrophy

Becker muscular dystrophy is a progressive, inherited condition characterised by progressive muscle-wasting and weakness, affecting mostly the proximal lower and upper limb muscles. Symptoms and severity of the condition can vary from one person to another.

Patients usually have difficulties in walking and climbing stairs. They may present with frequent falls and may become non-ambulant as the condition progresses. Patients may also have difficulty raising their arms above their shoulders, as the condition progresses.

Fatigue and pain can occur after mild exercise and in walking. Paraspinal muscles are also affected and patients can develop scoliosis (curvature of the spine) and lower back pain.

NOTE: Liver enzymes (AST/ALT) will be high on blood tests: this is normal in Becker muscular dystrophy and is attributed to muscle break-down. This should not prompt liver investigations unless otherwise indicated.

Recommendations and precautions

- Immunisations should be kept up-to-date. Do not use live vaccines if using corticosteroids.
- Wear seat belt when using wheelchair to avoid dangerous falls.
- Wear a medic alert bracelet.

Anaesthetic precautions (continued)

- Use intravenous general anaesthetics only (avoid suxamethonium). Inhaled anaesthetics should not be used.
- Local anaesthetics and nitrous oxide are safe, e.g. for minor dental procedures.

Cardiac

- Patients with Becker muscular dystrophy can develop cardiomyopathy. Those with lesser muscle symptoms are at risk of severe heart involvement. All need regular heart checks.
- Early ACE-inhibitor and beta-blocker usage slow the progress of cardiomyopathy.
- Heart failure symptoms will be subtle / absent in those with greater disability. If a patient has not been having regular heart checks, consider the possibility of a severe underlying cardiomyopathy.
- Cardiac arrhythmias must be considered for patients with palpitations and/or dizziness / pre-syncope and investigated with ECG, 24-hour tapes or similar.