

Name..... Date of birth.....
NHS/CHI/H&C number.....
If presenting at A&E, contact the specialist team at:
.....
as soon as possible on:

For information and support, contact us on our helpline
0800 652 6352 or email info@musculardystrophyuk.org

Rhabdomyolysis

- People with BMD are at a higher risk of developing rhabdomyolysis (rapid breakdown of muscles). This can be life-threatening. It can be triggered by overexertion or inhaled anaesthetics.
- Symptoms include muscle pain and passing dark red or brown coloured urine. If this happens, urgently admit to hospital for assessment, administration of IV fluids, and monitoring.

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Anaesthetic precautions

- **Avoid suxamethonium.** Avoid inhaled anaesthetics and neuromuscular blocking drugs due to a high risk of acute rhabdomyolysis – see ‘Rhabdomyolysis’ section.
- It is essential that the anaesthetist is aware of the diagnosis of BMD to allow appropriate pre-operative assessment and post-operative monitoring. Close liaison between surgical, anaesthetic, and respiratory teams is necessary.
- Local anaesthetics and nitrous oxide are safe for minor dental procedures.

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- BMD can lead to the development of contractures (shortened muscles that limit the movement of a joint). A physiotherapist can teach appropriate stretches and provide aids that provide a prolonged stretch to prevent contractures. They can also advise on positioning.
- Falls are common and can cause injuries. Getting up without help can be very difficult. Physiotherapists can advise on how to minimise falls and how to best get off the floor. Aids can be provided to assist mobility and transfers. They may need to use a wheelchair as the condition progresses.
- When managing fractures, it is important to consider the individual’s mobility, muscle weakness, and level of functional ability. Often, internal fixation with early rehabilitation is preferred to casting to reduce risk of muscle wasting in those who can mobilise.

Becker muscular dystrophy (BMD)

BMD is a progressive muscle wasting condition that mainly affects the proximal upper and lower limb muscles. The condition can also affect the heart and lungs.

- People with BMD often face challenges with mobility. They may find it difficult to walk on uneven ground and slopes, be unable to use stairs, and may be unable to get up from a low chair or the floor. Raising the arms above the shoulders can become difficult over time, and the development of scoliosis and lower back pain is possible.
- Liver enzyme elevation (AST/ALT) is normal in BMD due to muscle breakdown and should not prompt liver investigations unless otherwise indicated.

- Immunisations and flu vaccination should be kept up to date. If taking corticosteroids, it's advised to avoid the use of live vaccines.

Cardiac

- People with BMD can develop cardiomyopathy, which can be symptomless. Regular heart checks are essential. If the person has not been having regular heart checks, consider the possibility of a severe underlying cardiomyopathy.
- Symptoms of cardiac failure can be subtle such as fatigue, unplanned weight loss, and breathlessness.
- Consider the possibility of cardiac arrhythmias in people with intermittent palpitations, shortness of breath, dizziness, or stroke. An ECG test and a Holter monitor may be required.

- Early use of ACE-inhibitors + beta blockers can reduce the risk of developing severe cardiomyopathy and heart failure.

Respiratory

- Chronic respiratory failure may present without typical signs of respiratory distress. Subtle signs include morning headaches, fatigue, reduced appetite, and unplanned weight loss. Consider underlying respiratory failure in case of a chest infection.
- In a crisis, supplemental oxygen must be carefully controlled and prompt a blood gas test to assess for respiratory failure. Non-invasive ventilation, with oxygen, can be started even with normal CO₂ levels if there are signs of severe respiratory infection. Contact the specialist respiratory team if possible.

- Assess secretion management and consider cough augmentation techniques such as assisted coughing, breath stacking with a LVR bag, and/or a cough assist device to clear secretions in the lower airway.
- General respiratory management includes regular screening and sleep studies to assess for nocturnal hypoventilation (shallow breathing at night).

Mobility and falls

- Regular exercise and staying active is crucial to maintaining muscle strength and joint flexibility. Physiotherapists can provide tailored advice on healthy activities and low-impact exercises which will not damage the muscles. Knowing how to use stronger muscles can optimise activity.