The British Medical Association (BMA) is an apolitical professional association and independent trade union, representing doctors and medical students from all branches of medicine across the UK and supporting them to deliver the highest standards of patient care. We have a membership of over 154,000, which continues to grow each year.

Key points
- The BMA supports the use of mitochondrial replacement techniques for the avoidance of severe disease or disability and welcomes the introduction of these regulations.
- The BMA believes there is a moral imperative to pursue this work without delay for the benefit of those who would wish to use this option as their only chance to have a healthy, genetically related, child.
- Given the thorough ethical and scientific review that has been undertaken, we believe the time is right to move a step closer to the use of mitochondrial replacement techniques in clinical practice.
- The BMA was pleased that MPs voted to approve the regulations laid before the House of Commons on Tuesday 3 February 2015 and we call on peers to do the same.

Background
Mitochondria are small structures found in our cells which generate energy to allow our bodies to function. Mitochondrial diseases are inherited conditions, passed down from mother to child, which can lead to serious disability or death. New techniques have been developed where faulty mitochondrial DNA from a mother’s egg can be replaced with healthy mitochondrial DNA from a donor egg. This prevents mitochondrial DNA defects from being inherited, so the child that develops from the egg will not inherit mitochondrial disease. This technique is known as mitochondrial donation.

The BMA is supportive of these Regulations which allow the Human Fertilisation and Embryology Authority (HFEA) to license these techniques for use in treatment, when it is satisfied that it is safe to do so. The amendment to the Human Fertilisation and Embryology Act 2008, to include a regulation-making power to allow the use of this technique in clinical practice, followed a detailed consultation exercise and many hours of debate in both Houses of Parliament. Since then an expert ethical review has been carried out by the Nuffield Council on Bioethics\(^1\) which concluded in 2012. The review found that, if shown to be acceptably safe and effective, it would be ethical for families to use the techniques. In addition, the HFEA carried out a major public engagement exercise\(^2\), which found broad public support for the use of these techniques to help those who want to use it to avoid passing on these devastating conditions in their children.
Safety of mitochondrial techniques
As well as a review of the ethical aspects of these techniques, there has been significant scrutiny of the science that underpins them. The HFEA appointed a panel of expert scientists which has carried out three independent reviews of the science. The latest review found no evidence to suggest that the techniques were unsafe and recommended some further work that should be undertaken before moving into clinical practice.¹ The UK is in the privileged position of having an effective and trusted regulator which makes the decision about whether and when to allow new techniques to proceed.

If the Regulations are passed this does not mean that the work can go ahead automatically; it gives the HFEA the power to approve the procedure as and when it deems it appropriate, based on expert review and evidence. By passing the Regulations, Parliament would be giving the HFEA the tools it needs to carry out the important job it has been set up to do.

Moral imperative
Given the high level of both scientific and ethical scrutiny to which these techniques have been subjected to, we are confident we can move a step closer to seeing the use of these techniques in clinical practice. Introducing the Regulations now will allow the HFEA to consider licensing these techniques as soon as sufficient evidence of safety is available. Waiting until all of the necessary evidence is available before beginning this process of passing Regulations will result in unnecessary delays in using the techniques to benefit patients.

The BMA believes there is a moral imperative to pursue this work, without delay, for the benefit of those who would wish to use this option as their only chance to have a healthy, genetically related, child. We urge peers to support these Regulations.

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References