

Issue date
7 August 2023

Distributed to:

Chief Executives
Directors of Clinical Governance
Director, Regulation and Compliance Unit

Action required by:

Chief Executives
Directors of Clinical Governance

We recommend you also inform:

Directors, Managers and Staff of:

- Medical Imaging Clinicians who work in centres performing MRI

Expert Reference Group**Content reviewed by:**

Representatives from:
ACI Medical Imaging Network
ACI Ophthalmology Network
MoH SPRU

Clinical Excellence Commission

Tel: 02 9269 5500
Email: cec-recalls@health.nsw.gov.au
Internet: <https://www.health.nsw.gov.au/sabs/>
Intranet: <http://internal.health.nsw.gov.au/quality/sabs/>

Review date
August 2024

Cosmetics potentially containing metal in Magnetic Resonance Imaging

Situation

Cosmetics containing metal, including coloured contact lenses, magnetic eyelashes, and eyeshadows, have the potential for metallic fragments present to interact with the Magnetic Resonance Imaging (MRI). In particular, cosmetic contact lenses, commonly referred to as “baby doll” lenses, are becoming more popular and have been identified as a risk to patient safety.

The pigments in most if not all cosmetic lenses are near the front surface of a contact lens and are reasonably isolated from corneal tissue but there is the remote potential for minimal thermal damage of the ocular surface during MRI scan.

Background

Cosmetics potentially containing metal are not specified in the suggested checklist referenced in the [RANZCR MRI Safety Guidelines](#) Section 7.5 & appendix C. This results in inconsistencies seeking information on metal in the eye that is not directly related to “injury to the eye involving a metallic object or fragment”.

Not all current MRI pre-screening questionnaires identify the presence of cosmetics, including coloured contact lenses, which may lead to failure to identify all risks.

These contact lenses, eyelashes and eyeshadows can be removed, and any patients with these cosmetics must be asked to remove these before entering the MRI for safety reasons.

Examples of the cosmetic contact lenses:

**Assessment**

There is no standardised NSW Health/ National MRI safety checklist which has resulted in variations of pre-screening questionnaires. Although checklists follow the same principles, the level of detail varies which means that many medical imaging centres performing MRI would not be asking about cosmetics potentially containing metal.



Clinical Recommendations

1. At the time of booking, patients should be advised not to wear cosmetic contact lenses to the MRI appointment. Alternatively, patients should ensure they are prepared with a contact lens case for storage.
2. MRI safety checklists should be updated to include listing cosmetics potentially containing metal including coloured contact lenses, magnetic eyelashes, and eyeshadows.
3. MRI technologists need to verbally check if a patient is wearing any cosmetics potentially containing metal including coloured contact lenses, magnetic eyelashes, and eyeshadows.
4. Patients wearing cosmetic contact lenses, magnetic eyelashes, and metallic eyeshadow, should be advised to remove these before an MRI scan.
5. Patient should be advised to alert the MRI staff immediately if they have any feeling of heating or discomfort during the scan to cease imaging and be assessed appropriate

Note: The removal of prescription clear contact lenses is not required.

Required actions for the Local Health Districts/Networks

1. Distribute this Safety Notice to all relevant clinicians and clinical departments where MRI is performed.
2. Include this Safety Notice in relevant handovers and safety huddles.
3. Escalate any concerns related to patient safety to CEC-Recalls@health.nsw.gov.au
4. Report any incidents associated with these devices into [ims+](#) and [TGA](#).

REFERENCES: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3616822/#B5>
<https://www.reviewofoptometry.com/article/mri-contact-lens-considerations>