



Singapore Healthcare Management 2017

Improved Immobilising Pad Design in MRI and CT: A Cost Effective and Infection Prevention Invention

Invention



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Introduction

Immobilising pad is an important imaging accessory used to maintain patient in a fixed position and prevent patient movement during scans. These pads are costly to replace when the coverings start to disintegrate and exposure of foam core is a source of infection. An initiative was made to design a cost effective immobilising pad which allows ease of disinfection after every use to ensure a safe and infection controlled imaging environment.

Disintegrated immobilising pad



Methodology

Immobilising pads are sold for a few hundred dollars depending on size. They are designed with polymer coating that disintegrates from frequent disinfections with alcohol and usage and it can become a breeding source for micro-organisms.

Principles of prototype design

- I. Patient's safety
- II. Patient's comfort
- III. Infection control
- IV. User-friendly
- V. Artefact-free

The collaboration with a manufacturing company innovated a more robust immobilising pad design.

Results

New Design:

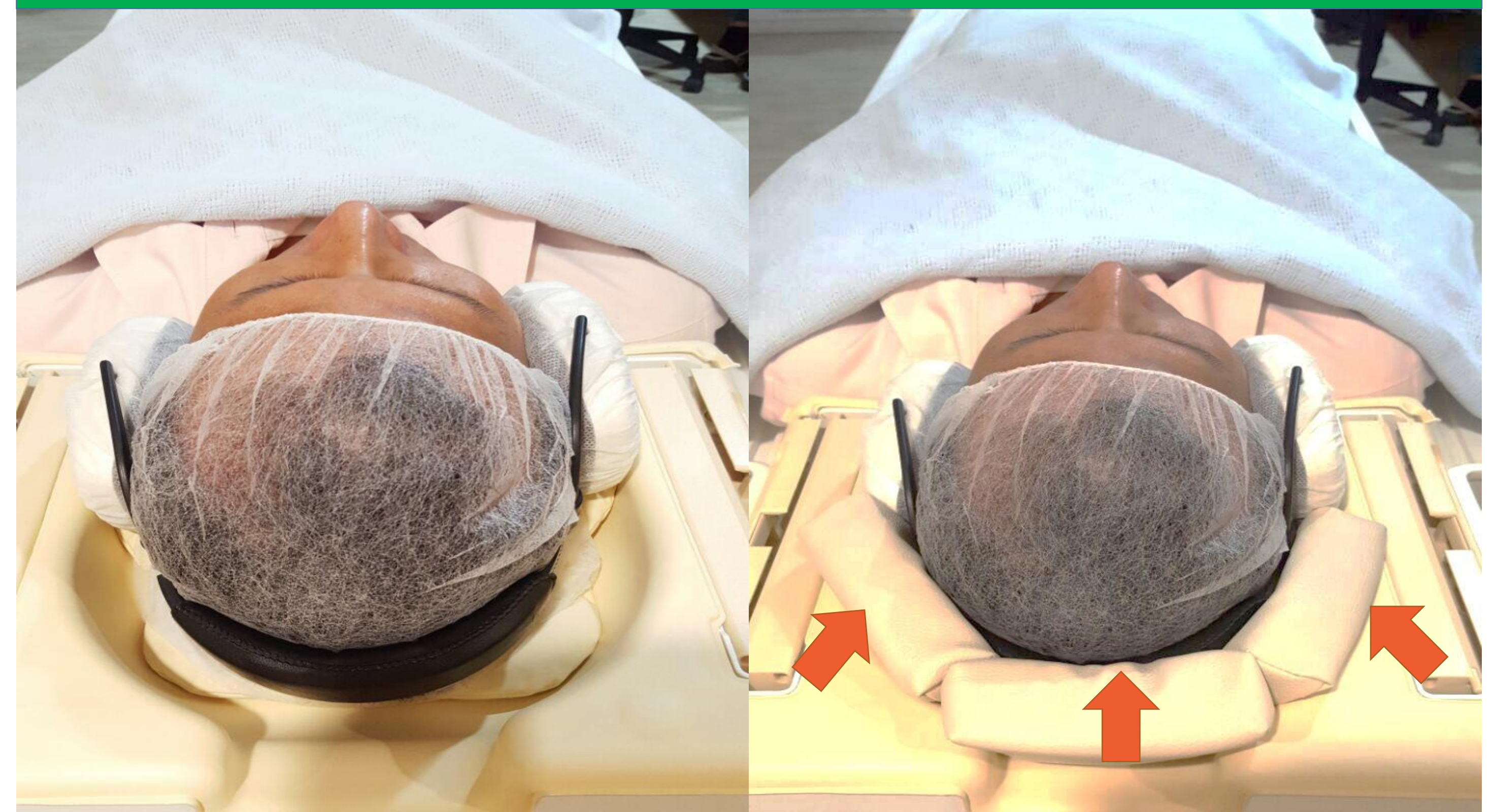
- ✓ Synthetic leather covering
- ✓ Polyester thread

New design is only 10% of the market price

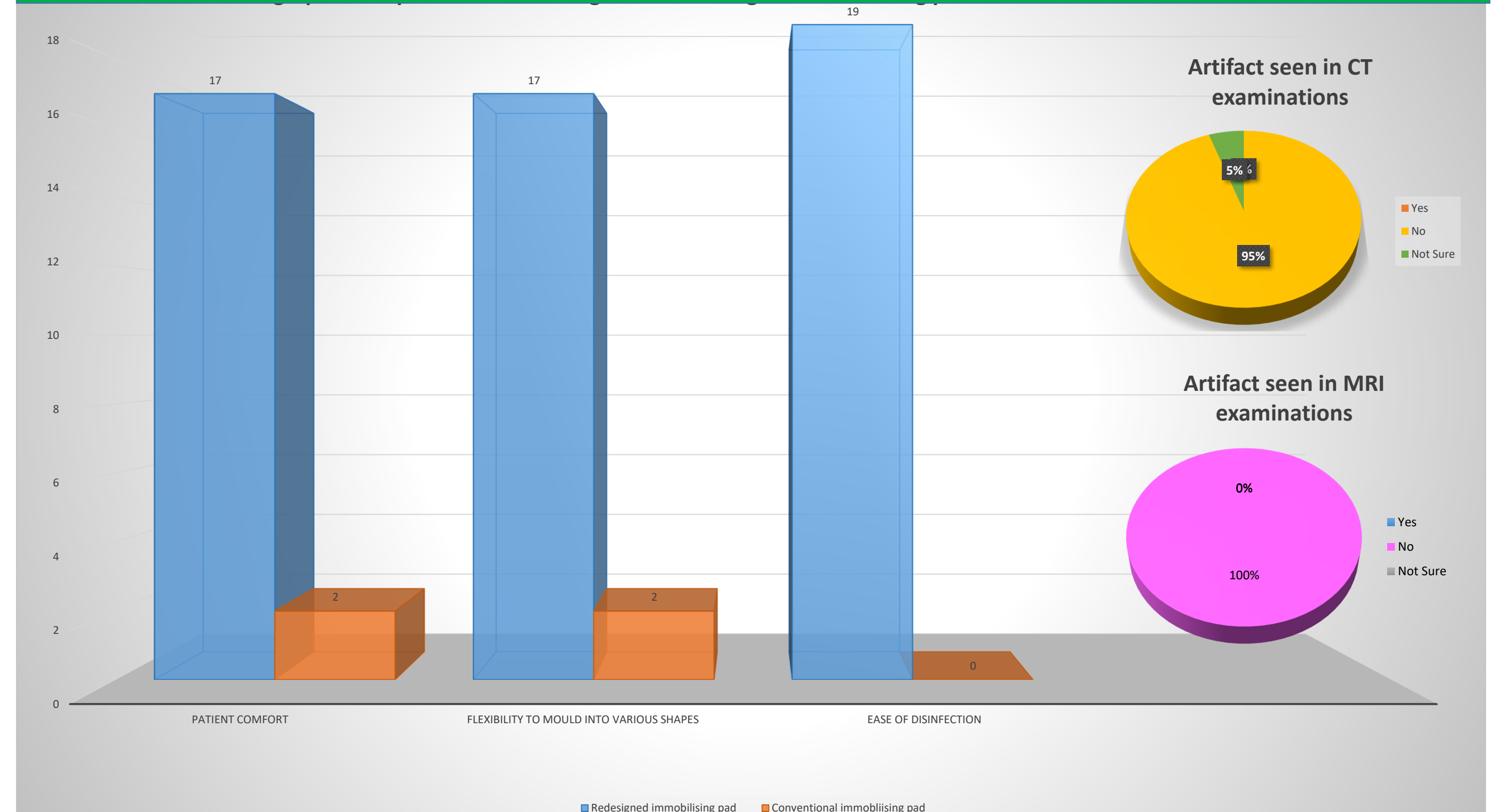
Redesigned immobilising pad



Use of redesigned immobilising pad



Radiographer's experience on the use of redesigned immobilising pad



Conclusion

- ★ Adhering to the 5 principles to create this immobilising pad has demonstrated its efficacy and cost-effectiveness
- ★ We recommend the use of these pads in all radiology departments